Algeria. Ministère de l'Information et de la Culture

THE FOUR-YEAR PLAN

70 A 1982

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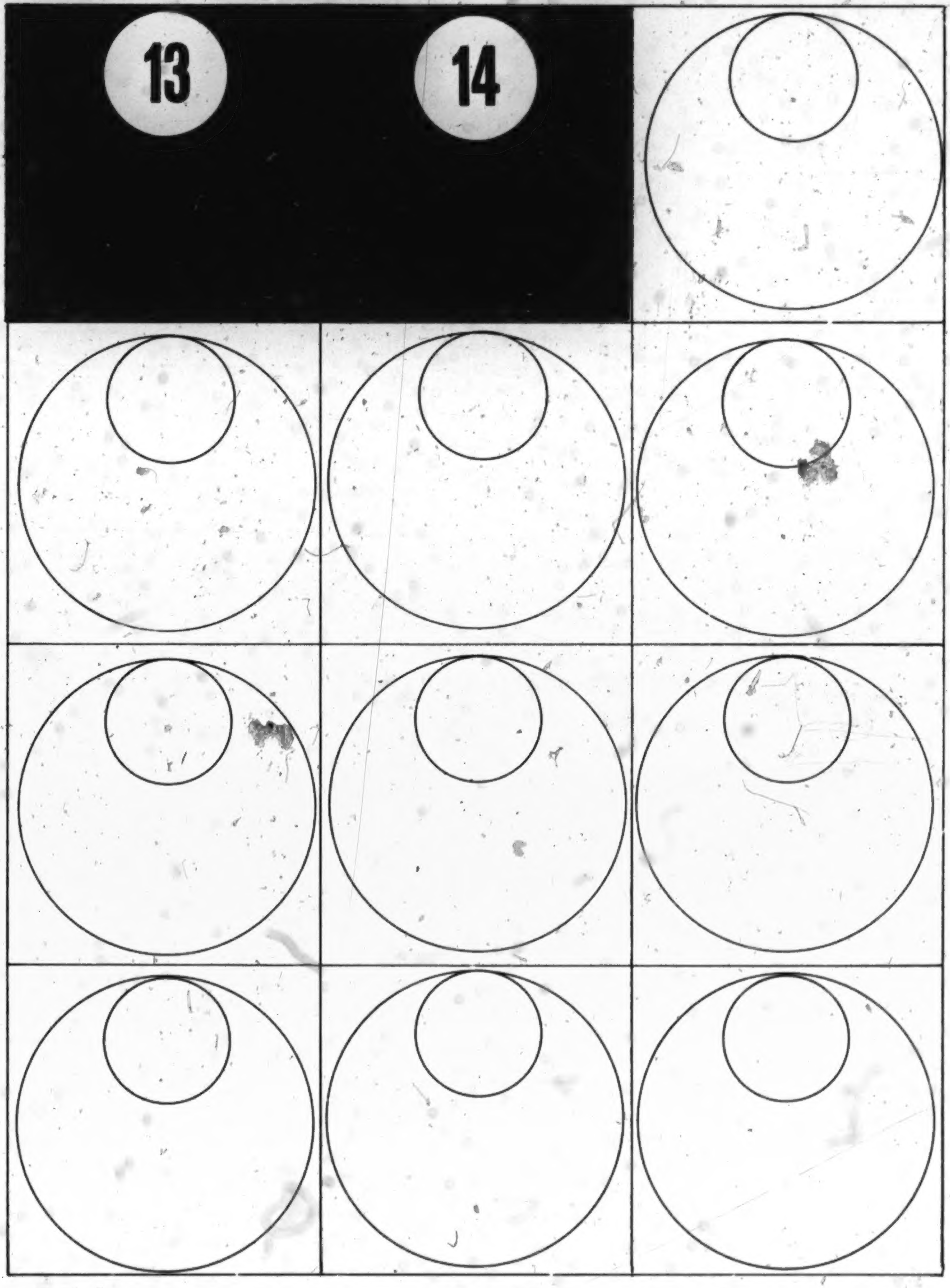
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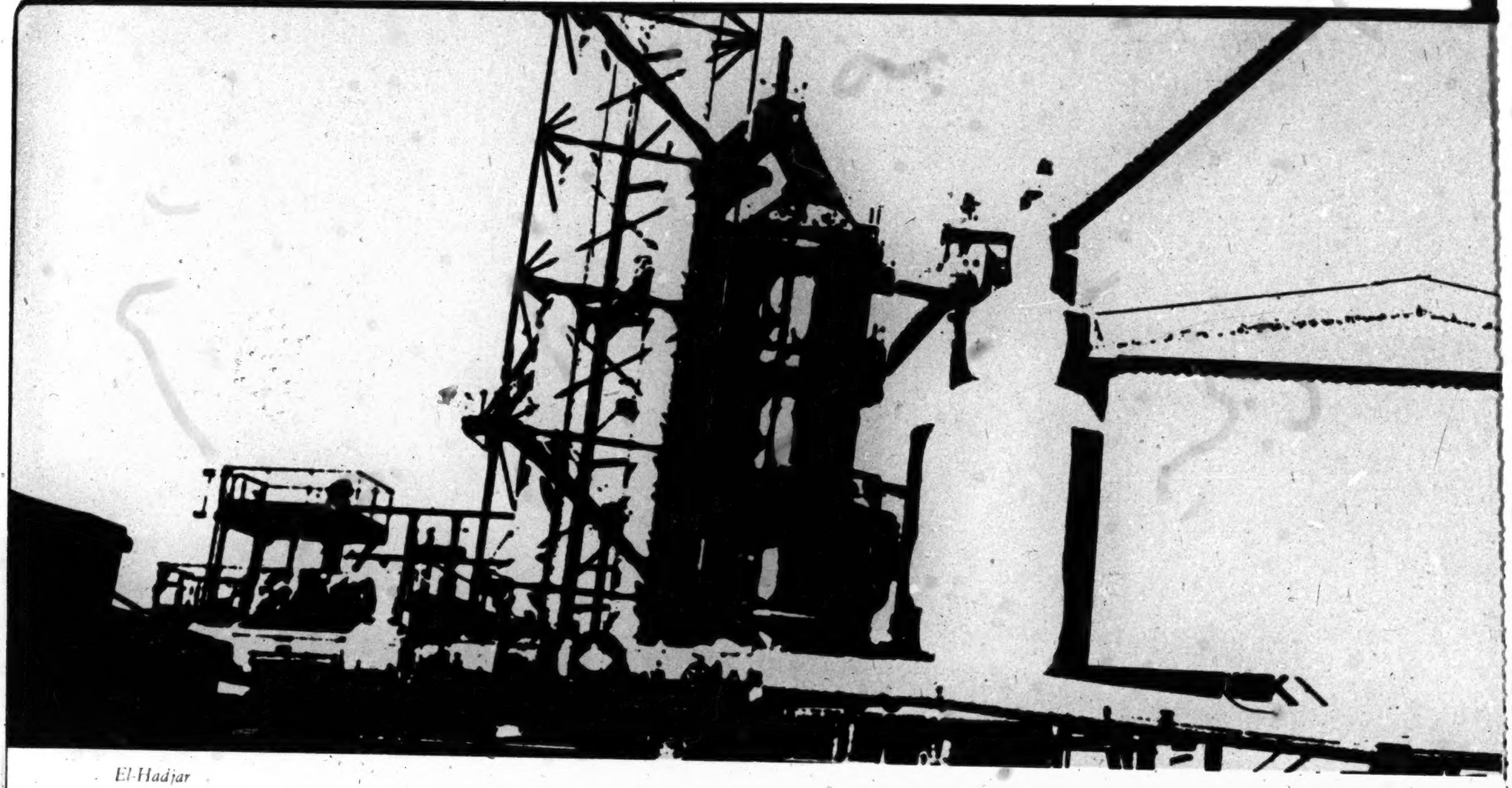
THE
FOUR-YEAR PLAN

The period

# of the plan (1970-73)



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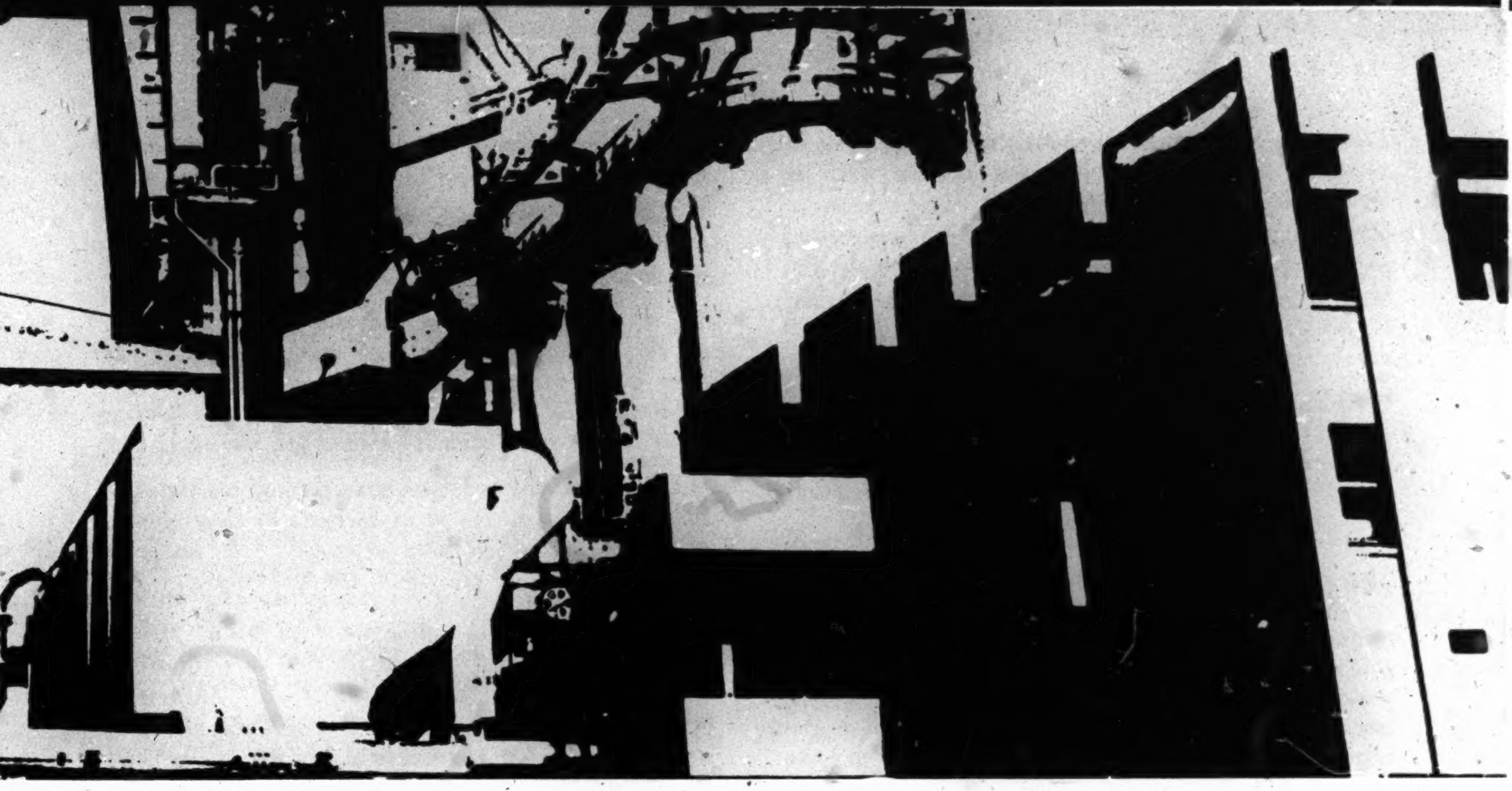


A defence of industrialization

An underdeveloped economy is characterized:

- *By the limitation of its production and exports to activities in the primary sector;*
- *By its degree of openness to outside influences;*
- *By the high proportion of the working population engaged in agricultural pursuits.*

It has however been noted, with regard to this agricultural sector, that a high percentage of workers are in a situation of disguised unemployment and thus form a surplus labour force, playing no part in production. This is what happens in the traditional sector of Algerian agriculture.

With a view to overcoming unemployment (an inherent part of an underdeveloped economy) and promoting a continuous expansions of production whilst keeping ahead of population growth, the remedy of industrialization has often been proposed –– an industrialization seen as the replacement of imported manufactured goods by goods produced locally. An underdeveloped economy, like that of

Algeria, must approach industrialization by way of a deliberate, planned policy, for reasons deriving from:

- *The desire for economic independence, when these economies wish to compensate for the frequently adverse variations in both quantities exported and in export prices, which are symptoms of their vulnerability;*
- *Special factors, when these economies desire to eliminate overt or disguised unemployment by the creation of new jobs in an environment dominated by an enormous surplus labour force and a senseless rate of population growth.*

This policy of industrialization implies a rejection of the conclusions of the theory of international specialization, as conceived and propagated by the colonial powers ever since the 19th century. This theory, which has had its impact on economic policies, defined the colonial powers as providing the rest of the world with manufactured goods, and the marginal or underdeveloped countries as markets for surplus industrial products and a vast reserve of cheap raw materials and labour. This theory of international specialization can consequently be considered as the apparently scientific instrument of the maintenance of the colonial powers' industrial superiority — and this is particularly true of Great Britain — in that its application results in the relatively backward countries adopting Free Trade and refraining from all forms of protectionism. One of the conclusions of this theory is the fair and parallel evolution of prices for both the products exported by the developed countries and those exported by the underdeveloped countries. This is not, however, what actually happens, and for over a century there has been a falling-off of the terms of exchange and an imbalance in the relationships of international prices — with the underdeveloped countries invariably the losing party.

These developments can be put down to the following factors, among others:

- *The development of agricultural production in the underdeveloped;*
- *Countries themselves since the 'thirties, the period in which international economic relationships were suspended;*
- *The rapid evolution of technology, resulting either in a reduction in the use of raw materials, or in their being replaced by artificial or synthetic substitutes. Both of these developments have an adverse effect on the international demand for raw materials;*
- *Changes in the economic structure of the developed countries, resulting in an increase or development of heavy industry (using relatively few imported raw materials) as compared to light industry and agriculture;*
- *The existence of major international groups working to bring down the prices of raw materials;*
- *The presence in the world economy of zones operating a highly protectionist imports policy with regard to the products of certain underdeveloped countries. This applies to the European Economic Community with regard to wine.*

All the factors just referred to have an adverse effect upon the price of raw materials, i.e.; upon the underdeveloped countries' revenues from exports and the extent to which they can import, which together constitute the key factor in their economic growth. This pessimistic conclusion can be reinforced by the following two arguments:

- *The specialization of the underdeveloped countries in the exploitation of primary produce has not led to the industrial expansion that the processing of these products could have stimulated (i.e. copper in Chili, tin in Bolivia, oil in Algeria before 1962 etc...). This argument fully justifies the need felt by Algeria, when building her national economy, to socialize the means of production and, in particular, those strategic sectors hitherto controlled by foreign capital (iron-ore mines, steelworks etc.).*

- *The esport firms controlled by foreign investments often transfer their profits to the developed countries, with an adverse effect on the national income and balance of payments of the underdeveloped countries. In addition, when these profits are re-invested, this reinvestment operates above all in the favour of the developed countries who provide both capital and equipment. This is why Algeria, now that she has taken over the principal centres of decision in a series of nationalizations, now practices a policy of diversifying and integrating, to the greatest possible extent, her total economic structures.*

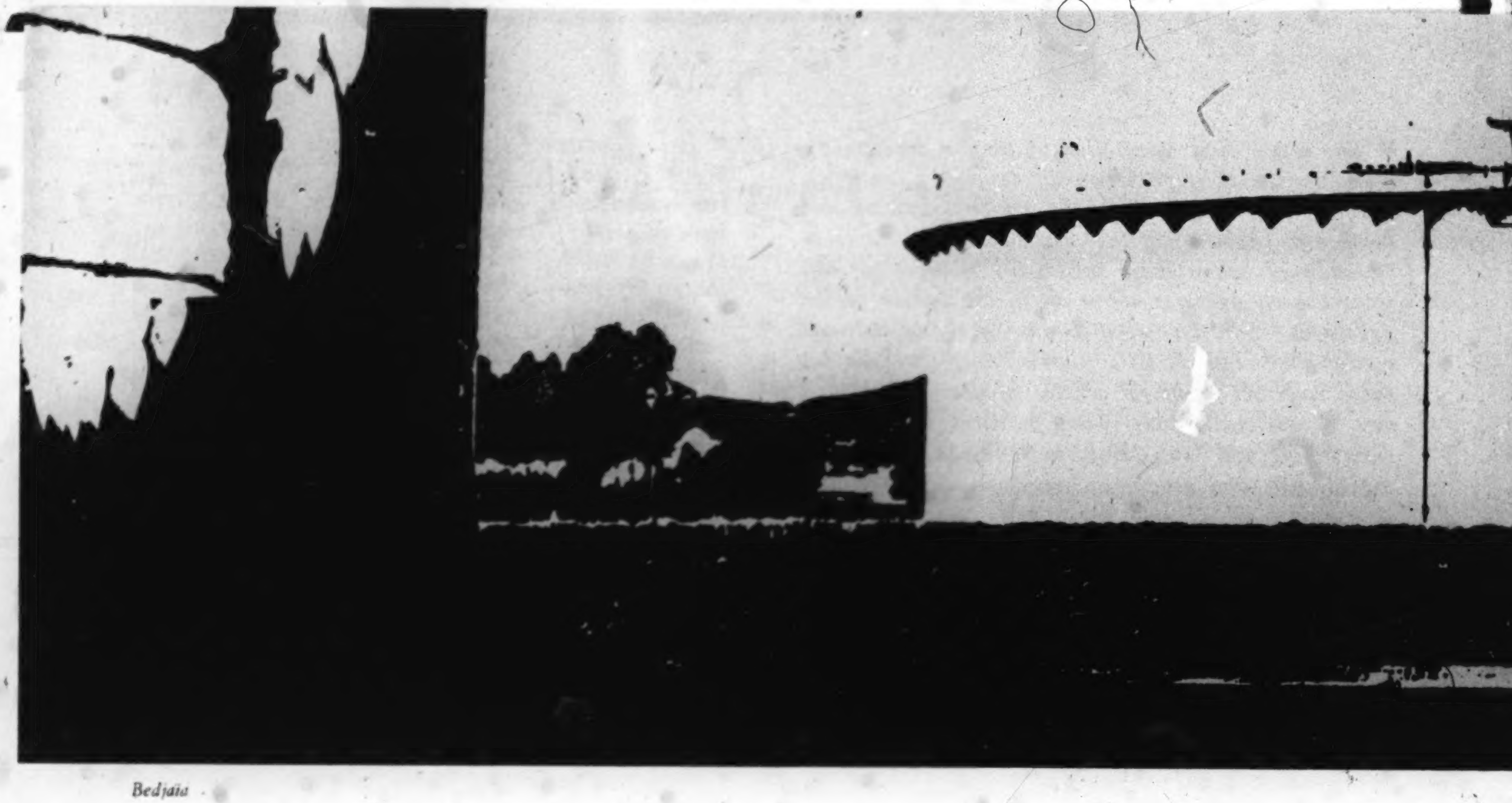
- *The specialization of the underdeveloped countries in the primary sector has led to their becoming isolated from the profits of the external and internal savings which both were and are the basis of the developed country's dynamism.*

All these arguments tend to the conclusion that the development of the secondary sector, or industrialization, becomes vitally necessary in a country whose aim is sustained economic growth. Such a policy will have positive effects upon the national economy at several levels:

- *It will influence the social environment by improving the workers' technical skills, by modernizing consumer habits, and increasing the propensity for innovation, by stimulating the cultural level through the urbanization that it entails. It can be argued that the primary sector cannot have such a profound influence on the environment as does the secondary sector;*

- *It will lead to an increase in the level of productivity which conditions the country's real income, accordingly implying a rise in the standard of living. It therefore contributes in part to bridging the gap between the incomes of the developed countries and those that are underdeveloped;*

- *It is characterized by the links it forges between the various elements in the chain of production. The development of industrialization consequently implies the development of the activities to which it is linked. The primary sector, on the other hand, is known to have only slight immediate or long-term effects upon other activities. It follows that a policy of rapid economic growth calls for the setting-up of industries and, in particular, the key sectors of industry (mechanical engineering, steel etc.) which have a maximum effect upon others.*



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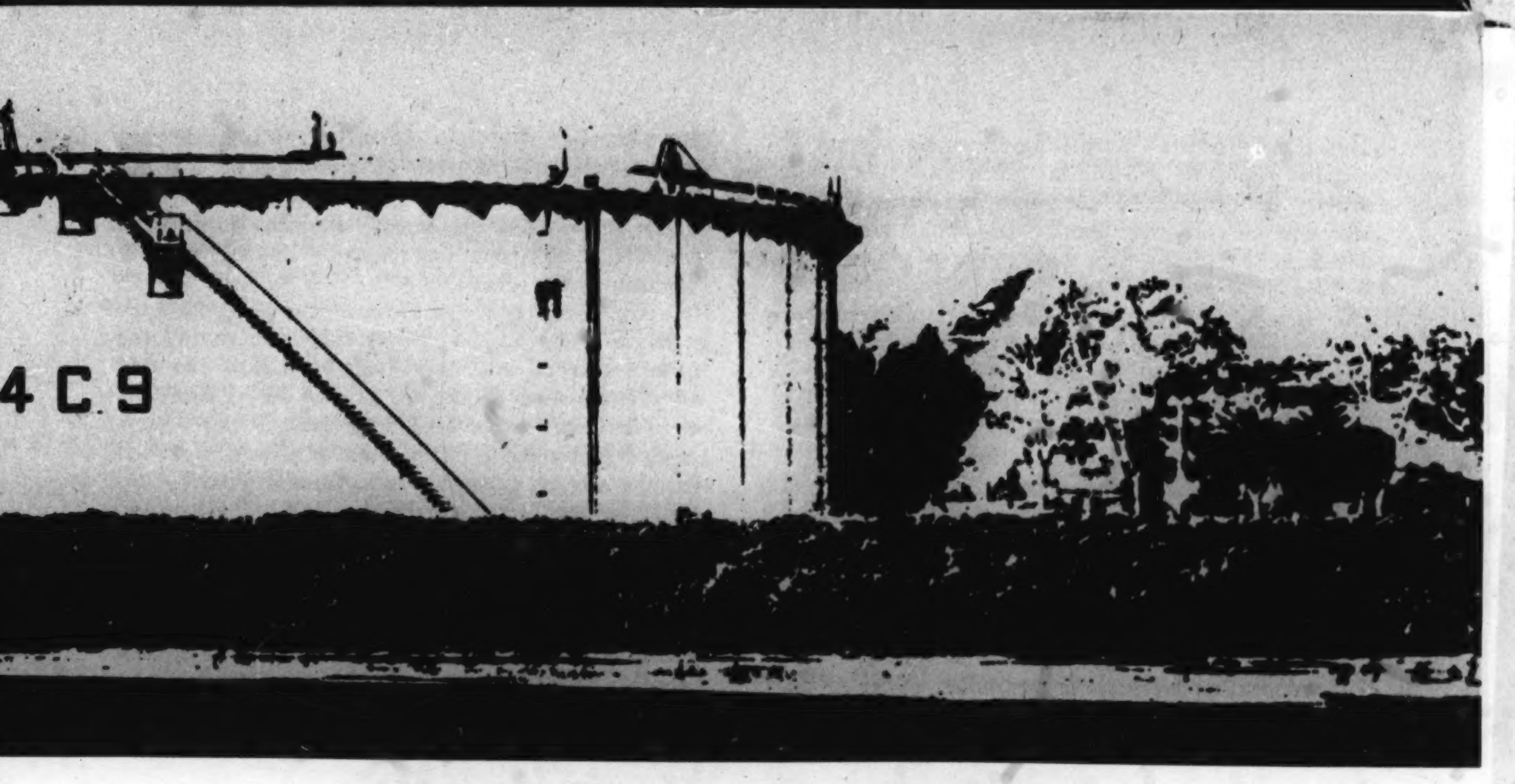


Algeria's policy of economic development

It will be evident that the Algerian Four-Year Plan implies a rejection of the capitalist development schema according to which light industries should first be developed and basic equipment should still be imported, until such a time as the light industries provide a market for the products of heavy industries. From the standpoint of the underdeveloped countries, this schema of economic development does not allow a maximum accumulation of capital — and this is what governs the real rate of income, as is proved by the experience of the developed countries.

An analysis of Algerian policy

Planning is the indispensable instrument of Algerian economic policy, without which it cannot arrive at the required degree of rationality and coherence in its industrial projects, and the integrated long-term expansion of the national economy, whose principal objective is the simultaneous but differentiated progress of all sectors, but in predetermined proportions.

This policy has its doctrinal basis in the schema of socialist economic growth in which two spheres of activity are defined; i.e. the capital equipment sector and that of consumer goods. Economic growth is based on:

- *The close links between the various sectors of the national economy, of which the Government aims to make the best use by selecting key industries and thus maximising growth;*
- *The proportions of the two sectors, thus enabling the greatest possible capital to be accumulated, without affecting the level of consumption.*

A coherent and long-term economic development will become possible if based on these two trends, and will be able to absorb the surplus labour force that now exists. When selecting industrial projects, the Government was faced with a choice between:

- *Either production processes making a minimum use of capital and a maximum use of labour;*
- *Or production processes or techniques making a maximum use of capital at the expense of the use of labour.*

As the first solution implies a negative effect upon the level of productivity, the Government has opted for the second solution implying the application of a very advanced technology (steel production, petrochemistry etc.) and a very positive long-term effect upon both growth and employment, in that such projects will create surplus capital which can then be re-invested. The amount of this surplus will be increased by the fact that, in an underdeveloped economy, salaries are low and under strict Government control.

At this point we must once more emphasize the degree of interdependence of investment options over a period of time, in that the trend of present-day investments will determine the possibilities of future capital accumulation. This is to say that Algeria, when laying down a basis of heavy industry, is enabling herself, at a future date, to give a rapid impulse to light industries or the production of consumer goods, that it to say the sector of activity which:

- *Has a powerful impact on the level of employment;*
- *Brings about a marked increase in consumption per head of the population.*

Given the fact that light industries can only develop slowly at the present stage of our economic development, there is a risk that inflation could be generated by an increase in demand resulting both from investments and from the relatively limited range of consumer goods available.

To avoid these risks, the Government plans to apply an incomes and taxation policy aiming to control the level of demand and, moreover, as Algeria has currency reserves of about 400 million US dollars, the anti-inflationist weapon of importations can always be used if necessary. It should, however, be noted that the rate of expansion of consumer goods (both industrial and agricultural) will be, in any case, higher than the rate of increase in the population between 1970 and 1973. This result will be obtained by a marked increase in productivity.

This is to imply that industrialization does not necessarily bring about a fall in the volume of consumption. In the terms of Algerian development policy, industrialisation signifies a parallel but differentiated growth in both consumption and investment, with the latter increasing more rapidly than the former.

In any underdeveloped economy, the factors preventing economic growth are not so much financial as environmental.

In this context one should refer to:

- *The limited agricultural surplus serving to feed workers engaged in industrial production;*
- *The limited productive capacity of the sector of heavy industry.*

The first factor, in a case like that of Algeria where there is only a limited amount of land available, can only be overcome by a restructuration of the private sector and the introduction of new agricultural techniques (the use of fertilizers, tractors etc...), and these depend on the sector of heavy industry as is shown in the Four-Year Plan. It follows that the second factor, the presence of a sector of heavy industry, is the more essential from the standpoint of economic growth. Its establishment and its expansion have therefore been taken as the goals of Algerian economic policy.

Over a short term, the development of heavy industry has no very marked beneficial effect on either employment or overall economic expansion, because of its high coefficient of capital investment. But, in the long run, the national economy will provide its own equipment for light industry which will thus be enabled to expand, with a good effect on both employment and the rate of economic expansion. In addition, the national economy will have attained a high degree of self-sufficiency and reduced its dependence on outside help. It follows that the proportion of investment allocated to heavy industry at the present time is a decision fundamental to long-term economic growth.

The development of heavy industry, which takes a long time to mature, is not possible in a capitalist underdeveloped economy i.e. one geared to profit, because of the limited dimensions of the market. It is only possible in the case:

- *Of an economy where the public sector extends to all spheres of activity, rendering possible a coordination of investments as in Algeria;*
- *Of an economy geared to the selling overseas of its surplus produce, deriving from the technological indivisibilities of heavy industry. This is the case of Algeria, particularly, with regard to its steel industry.*

The role of the Government is vitally important in this context. By taking an active part in economic life, it is enabled:

- *To respect the proportions between the two sectors, whilst taking steps to develop heavy industry;*
- *To take advantage of the links between the various sectors. The Four-Year Plan, for example, endeavours to make the most of the chain of electro-mechanical production, both in respect of the end products (metallurgy, steel etc.) and with regard to the underlying processes (agriculture, transports etc.);*
- *To diminish, by appropriate planning, the uncertainties and hazards of economic life by enabling the various public bodies to predict future developments and make decisions.*

In short, this schema of development leads to the predominance of the public sector in economic activity. This is why it is characteristic of socialist economies.

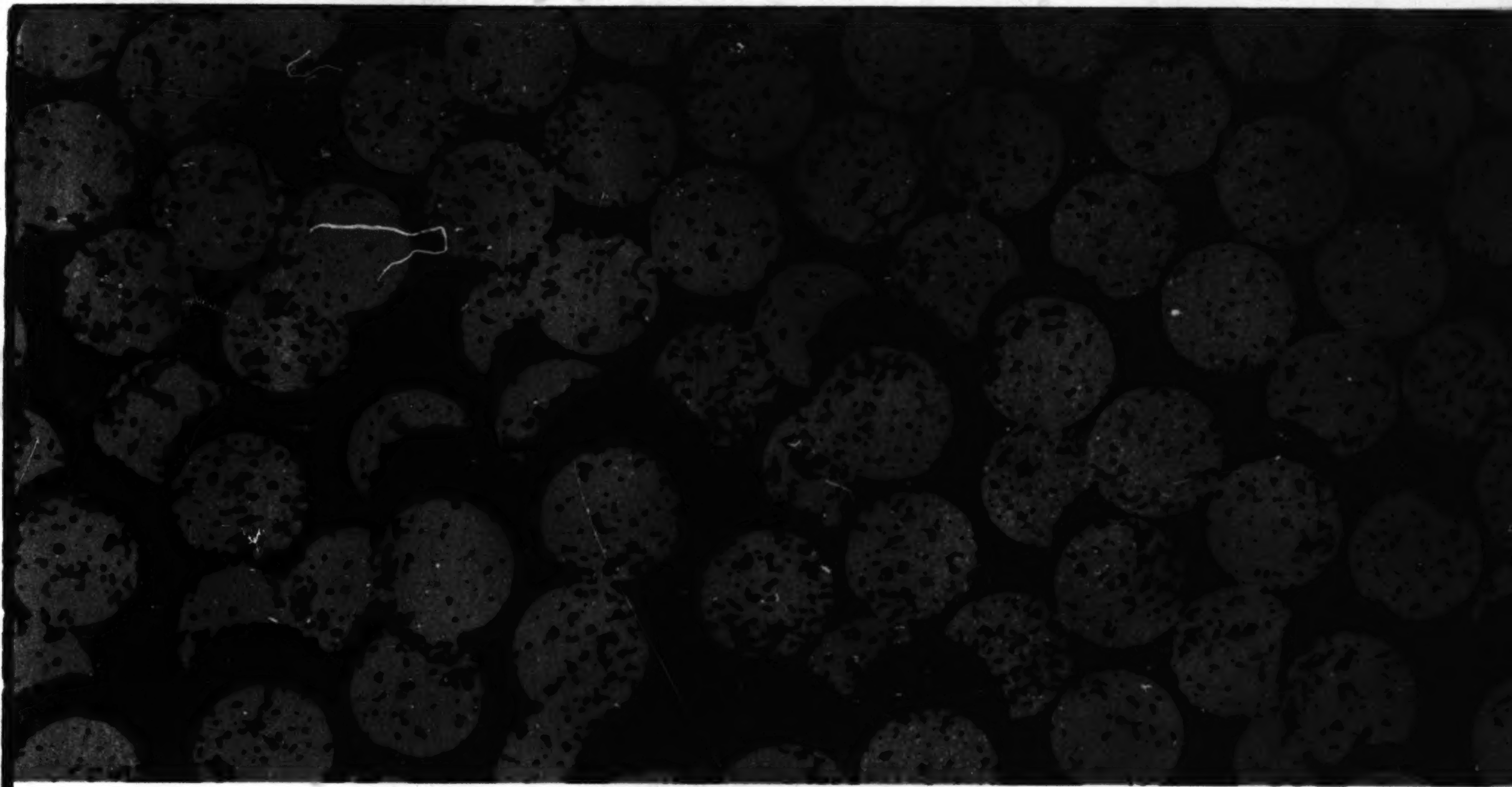
The role of foreign exchange

The diversification of the economic structure that is an outcome of this schema of development serves to enhance the importance of foreign trade. In the initial stage of economic development, nascent industries must be defended by strict Government protection, but the desire to promote efficiency leads the Government to calculate comparative advantages when deciding what lines of industrial specialization are possible for the nation. It is moreover necessary, if heavy industries are to be established, to have certain sectors of the economy geared to the export market, and thus earning the foreign currency needed as investment capital. Algeria derives benefit both from the private transfers resulting from Algerian workers overseas sending money home and from the rapid expansion of hydrocarbon exports and of agricultural exports (wine, citrus fruits etc.) which is to be brought about by improvements in both quality and price.

The calculation of comparative advantages allows production to be suspended in spheres that are judged to be unprofitable, and for the economy to resort to imports in their place; it also shows which products are profitable from the standpoint of the export market. It thus stimulates both efficiency and productivity. The primordial instrument of this calculation is the monopoly of overseas commerce conferred on the principal branches of national activity. All in all, it can be said that Algerian policy for economic development, in spite of the long-term diversification of the economy which it aims to bring about, necessarily implies that three conditions should be met, i.e.

- *The orientation of the economy to overseas trade, because of the very large-scale production implied by the priority development of heavy industry;*
- *The need to import (and to finance) certain items of equipment which Algeria is unable to develop on a profitable basis;*
- *The intensive training of middle and uppergrade cadres, not only to run the national economy but also to be able to formulate conceptions of organization (or production) without having to rely on outside help.*

Overall predictions



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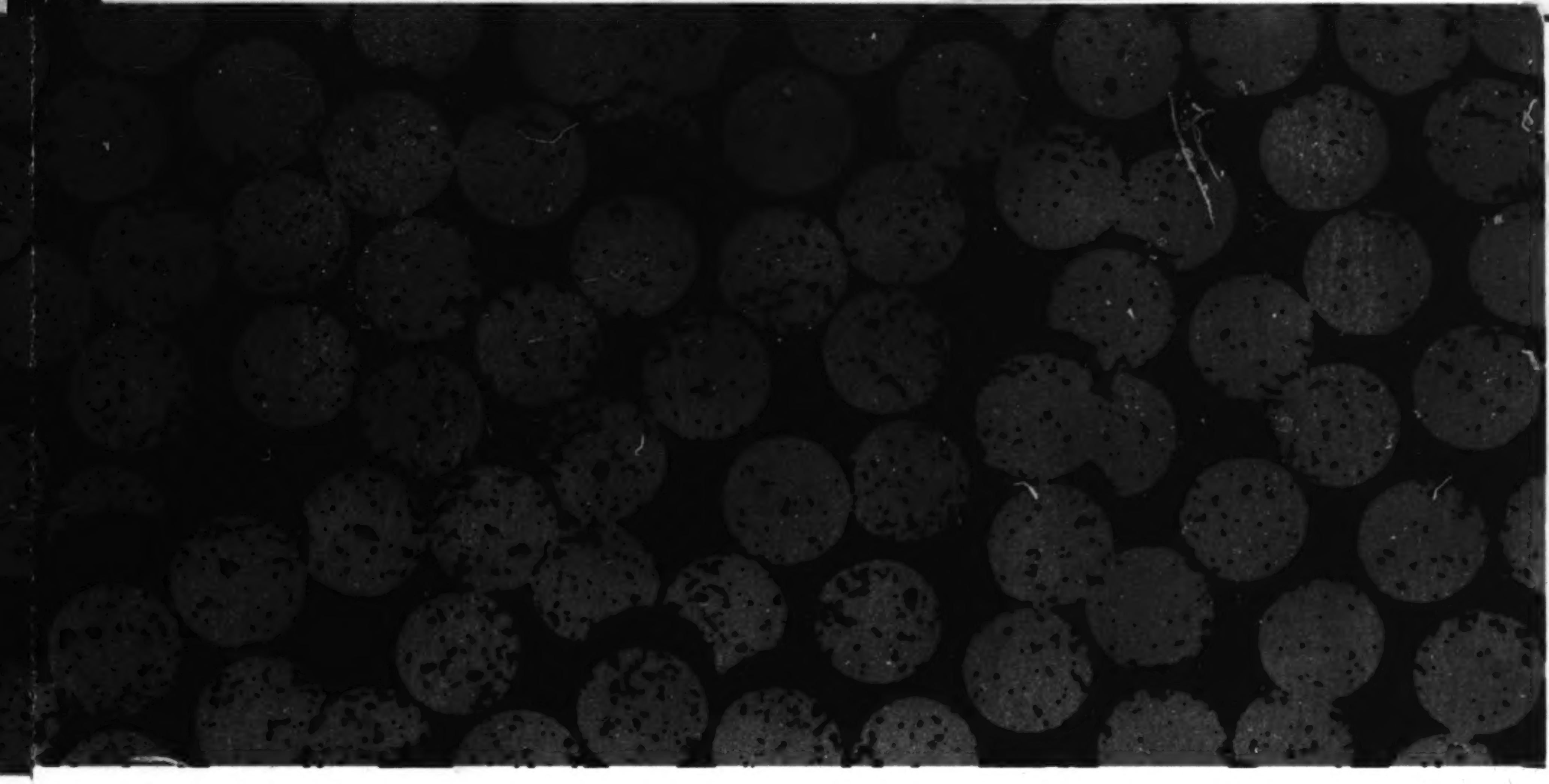


General outline

The national income

Algeria's income from internal sources should increase by 50% during the period of the Four-Year Plan. The cumulative rate of growth will be in the order of 9%. This high percentage can be explained by:

1) *The maturation of investments made under the previous Three-Year Plan (particularly in the key sectors of steel and petrochemistry);*

2) *The maturation of the new projects envisaged;*

3) *The increased productivity of industrial work and the increased yield from agriculture.*

The predicted increase in this income during the period 1969-73 is shown in the following table:

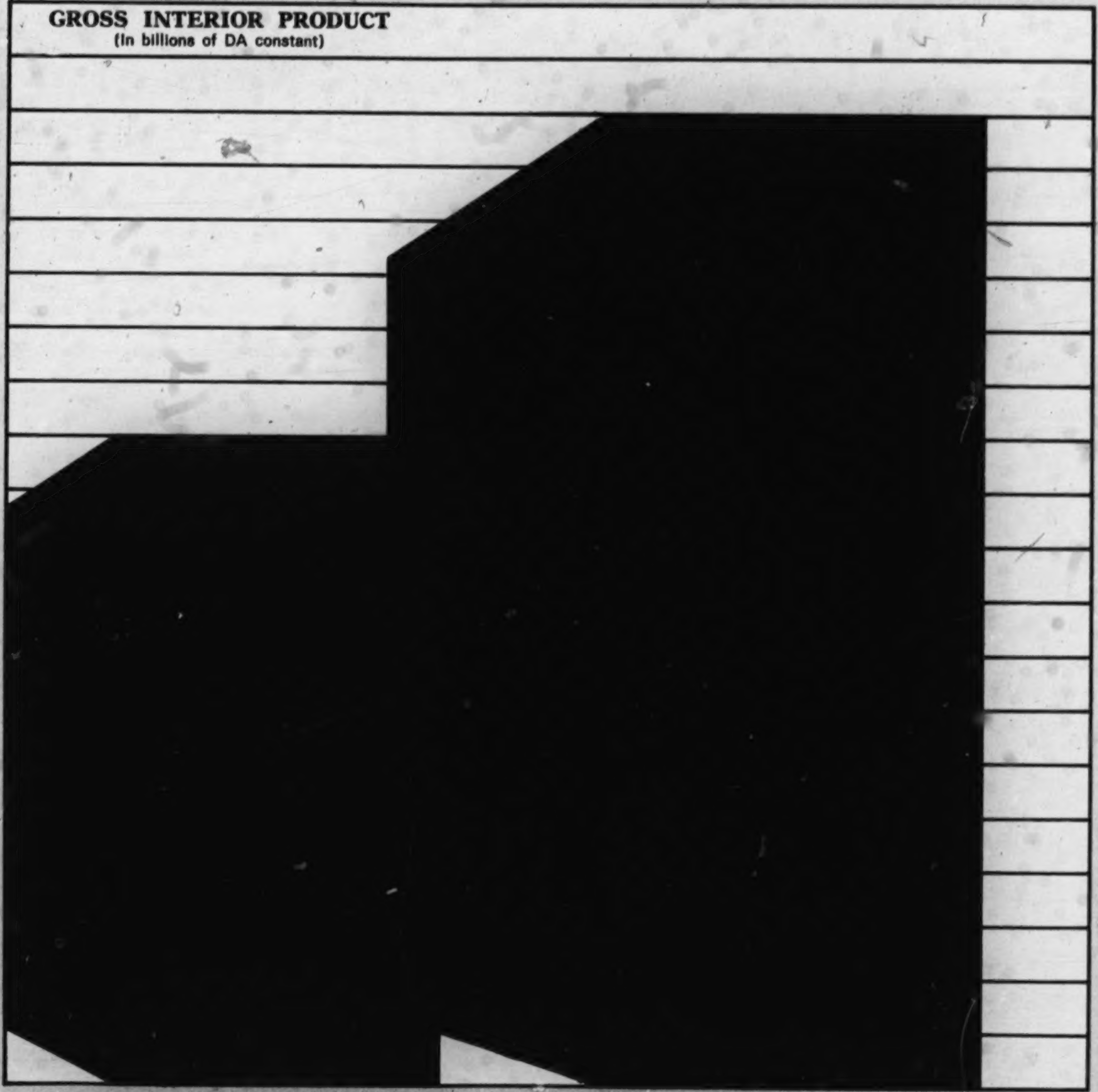
GROSS NATIONAL INCOME from internal sources (in billions of DA)	
1969	14,6
1973	21,08

This absolute variation in gross national income is due to the rapid development of the different sectors of the economy:

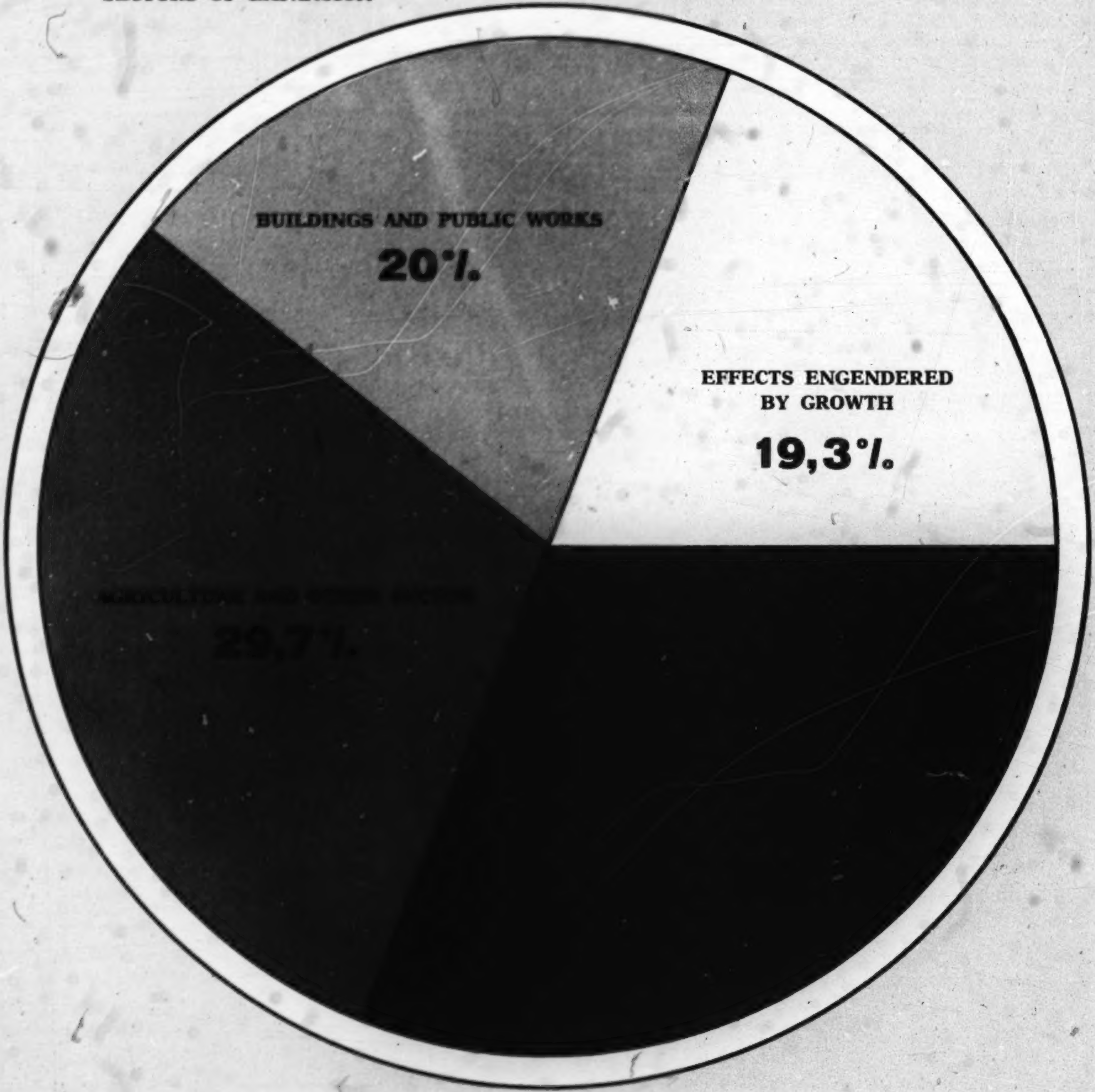
SEPARATE CONTRIBUTIONS TO THE EXPANSION OF INTERNAL INCOME (1970-73)	
Hydrocarbons	31 %
Building and Public Works	20 %
Agriculture and other sectors	29,7%
Inferred effects of growth	19,3%

The high rate of growth in the national economy is due to the growing part played by industry in economic development, and it is the annual growth rate of 13% in this sector which will determine the growth of Algeria's internal income. In other words, industrial development is a motive force for the entire economy, as is shown by the fact that the correlation between the increase in income from industry and that of the total income from internal services is 1.44 (13% : 9%). In the secondary sector, a marked increase in productivity (25.5% per annum) is particularly evident in the mechanical and electric industries, where the market is tremendous. These results confirm the correlation that exists between productive investment and the overall rate of growth.

The high rate of growth of industry is likewise linked to the enormous sum invested in this sector of activ-


GROSS INTERIOR PRODUCT
(In billions of DA constant)

GROSS INTERIOR PRODUCT
SECTORS OF EXPANSION



ity, i.e. about 12 billion DA or 45% of the overall investments during the period of the Four-Year Plan.

This programme of investment thus opens the way to an acceleration of the economic growth begun with the Three-Year Plan (1967-69). It will also enable us to get away from the negative ratio between economic expansion and population growth that characterizes so many developing countries. The rate of expansion of internal income is far greater than that of the population, which is about 3%.

This difference between the rate of increase of production and that of the population will allow the income per head to increase at a rate of about 6% per year. The following table shows this increase in income per head:

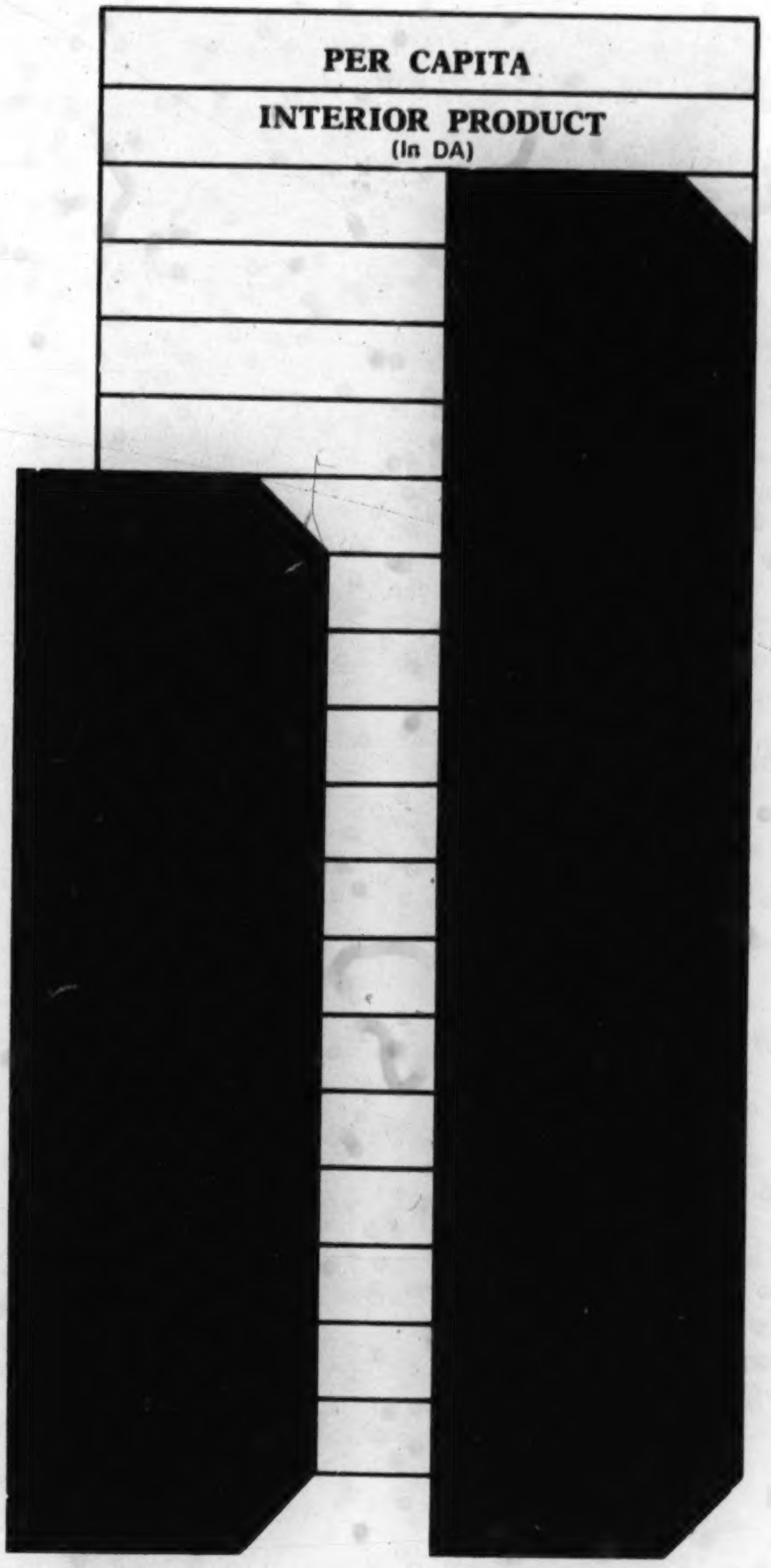
	NATIONAL INCOME from internal sources (in billions of DA)	POPULATION (in millions)	INCOME PER HEAD (in DA)
1969	14,6	13,2	1114
1973	21,08	15	1405

★

Consumption

The rise in the standard of living resulting from an increased income per head must result in an increase in overall consumption per head of the population.

If one applies, to the figure for the national income in 1969 and to that for 1973, the rates of investment hither already made of projected, according to the case, one can gain an approximate notion of internal consumption during these two years:



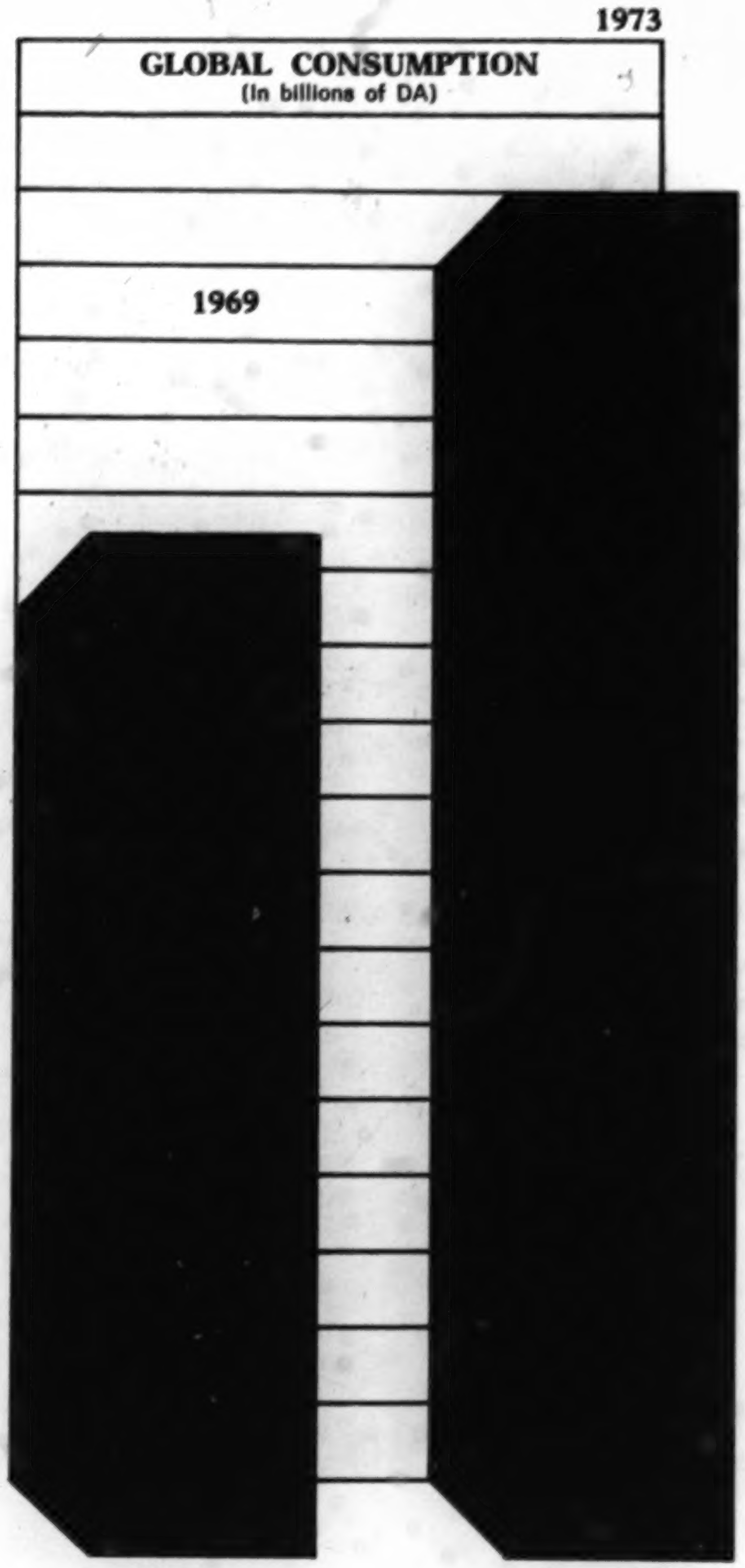
OVERALL CONSUMPTION
(in billions of DA)

1969	10,95
1973	13,75

This table shows that, during this period, consumption will increase more rapidly than the population. In effect, whereas the population is expected to be 1.15 times greater by the end of the four-year period, consumption should be 1.25 times greater — which necessarily implies an increase in material welfare evaluated at 2% per head per year. It should also be emphasised that, during the period of the Plan, consumption is scheduled to increase at a rate (5%) that will be lesser than the increase in production. This is due to the fact that the policy of diversifying national production requires growth to be compressed — not absolutely, but relatively to consumption, so as to give a maximum accumulation of capital. It follows that the increase in consumption predicted in the terms of the Plan results, in spite of everything, from middle-term measures of austerity designed to save money and thus finance economic development.

Given the low level of present-day incomes per head, the increase in consumption during the period of the Plan will largely imply an increased demand for essential products deriving from efforts in the field of agriculture. This is why the Government has planned for an increase in agricultural production, with a particular accent on the production of cereals through the use of fertilizers, the suppression of the practice of letting land lie fallow etc...

With the same end in view, efforts will be made to develop the production of pulse foods (seen as a possible substitute for cereals), market garden produce, meat and both milk and milk products, and there will be a promotion of crops for the food industry (sugar-beet, sunflower seeds for oil). The



increase in the quantities produced will be accompanied by an adequate agricultural prices policy and by a re-adaptation of the units of production, aiming to increase agricultural profits and make the sector more dynamic. This prices policy occupies a strategic place in agricultural and industrial relations as, by fixing fair agricultural prices, it acts as an effective instrument in the sharing out of the national income.
If one considers semi-durable manufactured consumer goods, one will find that there has been an increased consumption of textiles given a lowering of prices resulting from a restructuration and extension of productive complexes, and also because of the fact that the rural population has hitherto been unable to benefit from the expansion of this sector. The same can be said of the shoe and leather goods industry which has, on the contrary, a capacity of production able not only to meet the demands of the home market but also to manufacture for export. By reorganizing and improving its productivity, this sector will be better able to adapt to the home market and widen its outlets.

And finally, in the field of durable consumer goods, it is predicted that consumption will increase — particularly the consumption of goods that cannot be produced locally (furniture, crockery, mechanical and electrical articles etc. ...), that is to say of articles

- *that are used on a large scale, and where the problem of scales of production does not arise;*
- *involving technical production processes easy for us to adopt at the present stage of our economic and cultural development.*

Importations will continue to play an important part in meeting certain needs with regard to durable consumer goods.
All in all, the anticipated expansion of consumption will take place in accordance with the following proportions:

RATES OF INCREASE OF THE DIFFERENT TYPES OF CONSUMPTION (1969-1973)	
Foodstuffs	23,5%
Industrial goods (energy, transformation products)	30,0%
Transport and other services	12,5%
OVERALL MEAN	24,0%

A part of this expansion will be covered by imports, both of foodstuffs (3.9 billion DA from 1970 to 1973) and of other goods (textiles, heaters, refrigerating equipment etc. ...).

In conclusion, it can be said that the increase in consumption and its relative diversification can be laid down to the following four factors:

- *the increase in average income;*
- *the increase in the population;*
- *the increase in the volume of employment (in the order of 268,000);*
- *urbanization, a phenomenon inherent in industrialization (the population of the towns is expected to increase by one million between 1970 and 1973).*

Investments

Overall investments have markedly increased as compared to the trend in the past, and will amount to 28 billion DA between 1970 and 1973, or about 38% of the accumulated national income during this time. This extremely high rate of investments, rarely surpassed by any foreign country except Japan, expresses the Government's firm decision to devote the maximum of our productive resources to the drive for economic development, thus overcoming the dependence of the Algerian economy — a weakness inherent in any colonial economy built upon the principle of a complete openness to outside influences and of complementarity as compared to the Colonial Power.

The major part of these investments will be made either in directly productive sectors or in activities closely linked to these sectors but not in themselves productive:

MAJOR INVESTMENTS
(in billions of DA)

1) In directly productive sectors		**13,4**
a) Industry	10,1	
b) Agriculture	3,3	
2) In directly productive sectors		**6,1**
a) Education	3,3	
b) Training	0,6	
c) Communications	0,5	

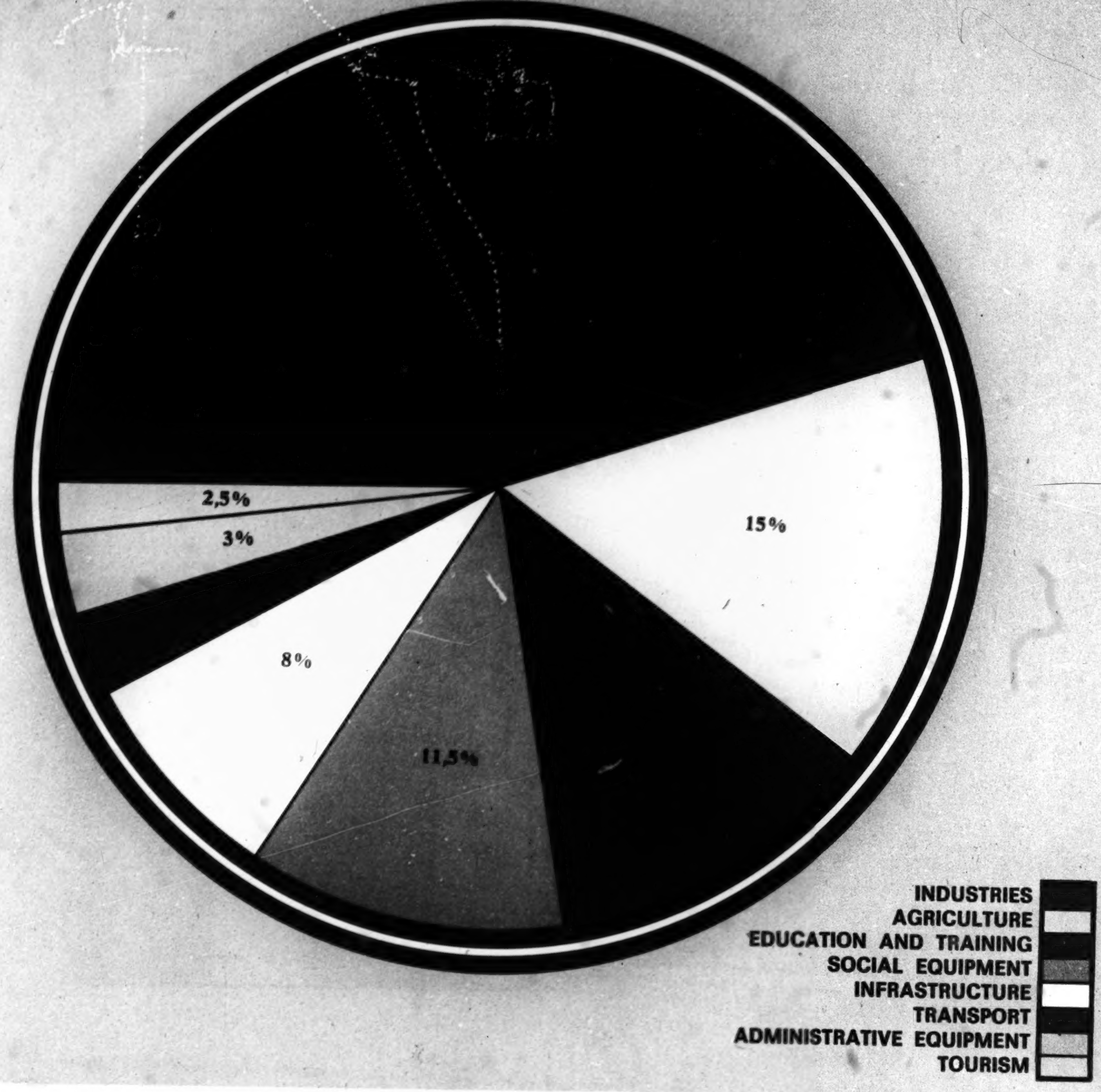
These figures show that the secondary sector accounts for 45% of overall investments — this explains the rate of growth of 13% in this sector. As for agriculture, it accounts for an overall investment of 4.14 billion DA used both for buying machinery and for projects directly affecting the expansion of production (irrigation, soil improvement etc.).

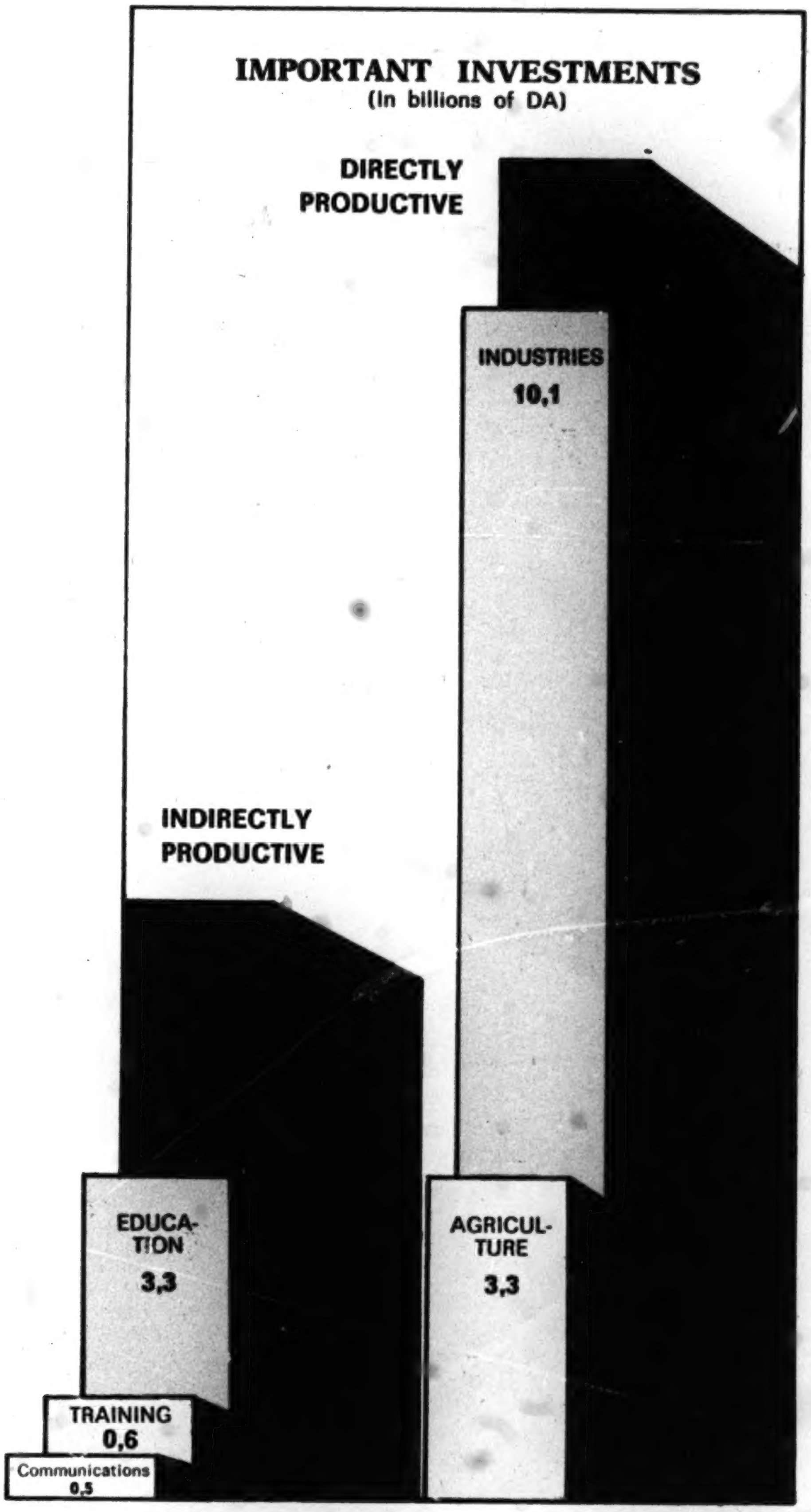
The Private Sector

In the industrial sector, during the whole period of the plan, gross

FOUR-YEAR PLAN
DISTRIBUTION OF INVESTMENTS

(In %)





IMPORTANT INVESTMENTS
(In billions of DA)

private investments will amount to 2.3 billion DA whereas net private investments, i.e. investments increasing production capacity, are in the order of 2.09 billion DA. These investments are predicted in the sector of the food industries, textiles, mechanical engineering and, particularly, hydrocarbons. This latter sector should attract more than 80% of net private investments or 1.6 billion DA. The following table shows the distribution of this investment over the various sectors of industry for each year of the four-year period (see page 18).

The agricultural sector will set aside 0.3-0.4 billion DA for investment, mostly for the purchase of machinery (4,400 tractors, 200 combined harvesters etc.). To this sum should be added an envisaged State investment of 1.4 billion DA, which is to be directed specifically to the traditional sector.

ESTIMATED NET PRIVATE INVESTMENTS 1970-73

(in billions of DA)

	1970	1971	1972	1973	TOTAL
Hydrocarbons	415	415	425	435	1.690(1)
Mines	—	—	—	—	—
Electricity	—	—	—	—	—
Steel and primary transformation of metals	—	—	—	—	—
Electrical and mechanical engineering	20	15	15	20	70
Chemicals and rubber	15	15	20	20	70
Food industries	15	15	15	15	60
Textile industries	35	35	35	40	145
Leather and hides	5	5	5	5	20
Building materials, ceramics, glass	5	5	5	5	20
Wood, paper, diverse industries	10	10	15	15	50
Artistic and utilitarian pre-industrial handicrafts	15	15	15	15	60
TOTAL	**535**	**530**	**550**	**570**	**2.185**

NB. (1) Includes secondary recuperation at Hassi-Messaoud. Our partner's share - 1,500 million DA over the four years of the Plan.

The Public Sector

In the industrial sector, gross public investments total 13.9 billion DA or 83% of total net investments. This percentage can be explained by the considerable and growing part played by the Algerian Government in the economic life of the nation.

Four specific sectors account for the greater part of the money involved in this net public investment, as is shown in the following table:

ABSOLUTE AND RELATIVE DISTRIBUTION OF NET PUBLIC INVESTMENTS OVER THE PRINCIPAL SECTORS OF THE ECONOMY (1970-1973)
(in billions of DA)

Hydrocarbons	4,57	36,8%
Steel and primary transformation of metals	1,9	15,5%
Electrical and mechanical engineering	1,27	10,2%
Building materials	0,94	7,6%
Total for these four sectors	8,68	70,1%
Total net public investments	**12,40**	**100,0%**

These data reveal the general trends of economic policy in Algeria, based on:

- *The development of the secondary sector, which is alone able to meet the diversified needs of the Algerian economy;*
- *The priority development of heavy industry which, by ensuring the local manufacture of basic equipment, will have a long-term beneficial effect upon the rate of growth of both the economy and employment.*

The choice of industrial investments has been conditioned by the criteria of:

- *The complementarity of projects, making it possible to integrate the various sectors of the national economy. The aim of this attempt to integrate different sectors is to make each investment productive of the greatest possible increase in both income and employment, and avoid the deflection of currency overseas through importations of equipment and intermediary produce;*
- *The need to meet deficits of production as compared to consumption with regard to goods that are hard to find, even on the world market. An objective of this nature reveals the Government's firm policy of reducing Algeria's vulnerability and dependence on utside sources;*
- *The need to avoid the risk of bottlenecks in such fields as energy, transports etc., which would compromise the process of growth;*
- *The possibility of arriving at important surpluses, able to be re-invested from time to time, thus turning our economic growth into a cumulative and self-sustaining process;*
- *This criterion partly explains the priority given to the development of heavy industry.*

In the socialist sector of agriculture, overall investments will amount to about 2.7 billion DA of which almost a quarter will be devoted to the provision of machinery to the units of production (8,000 tractors, 400 sheaf-binding harvesters etc.).

Foreign Trade

International economic relations are a crucial factor in economic development. But, if one accepts the plausible hypothesis of the limited availability of international capital, it follows that the current operations of the balance of payments (exchange of goods and services and unilateral transfers) are the basic elements conditioning economic development, at least in Algeria, where the factor of unilateral transfers is an important one because of the money sent home to the families of Algerians working in Europe.

And, whatever the case, the importance of foreign trade derives from the following factors:

- *It provides the foreign currency needed to buy* *equipment and intermediary products needed for industrialization as, in an underdeveloped economy, it does not suffice to save enough to invest and stimulate economic expansion (as is advocated by modern economic theory) — one must also dispose of adequate foreign currency to finance purchases of equipment;*

- *It enables us to establish a certain complementarity with the rest of the world, and thus cover the various deficits of the national economy, particularly with regard to current consumer goods. This reduces the possibility of both shortages and inflation. This point is emphasized in the Four-Year Plan.*

Exports

The value of exports is expected to increase by 55% during the period of the Four-Year Plan. Their annual rate of increase should be over 9%, i.e. higher than the rate of growth of the economy. This is why the coefficient of exports (relationship between exports and the gross national income from internal sources) should increase as shown in the table below:

COEFFICIENT OF EXPORTS
(Exports and Gross National Income in billions of DA)

	1969	1973
Exports	4,3	6,8
Gross National Income	14,6	21,08
Coefficient of exports	29,0%	32,4%

Such a modification, if continued and accelerated over a period of time, will bring about a profound transformation of Algeria's economic structure.

It will undoubtedly lead to manufactured products assuming pride of place in our exports.

With regard to the exportation of foodstuffs, sales of fruits, vegetables and preserves should increase by 90% between 1969 and 1973.

ABSOLUTE AND RELATIVE VALUE OF EXPORTS
(in billions of DA)

	1969		1973	
Agricultural products and foodstuffs	0,860	18,2%	0,950	14,1%
Mining products	0,160	3,2%	0,250	3,9%
Hydrocarbons	3,250	74,4%	5,130	75,4%
Industrial goods	0,180	4,2%	0,450	6,6%
TOTAL	**4.450**	**100,0%**	**6,780**	**100,0%**

Wine exports to traditional markets continue to be important, but a distinct effort will be made both to improve quality and find new markets.

In the field of hydrocarbons, crude oil remains predominant and will always be our most important export.

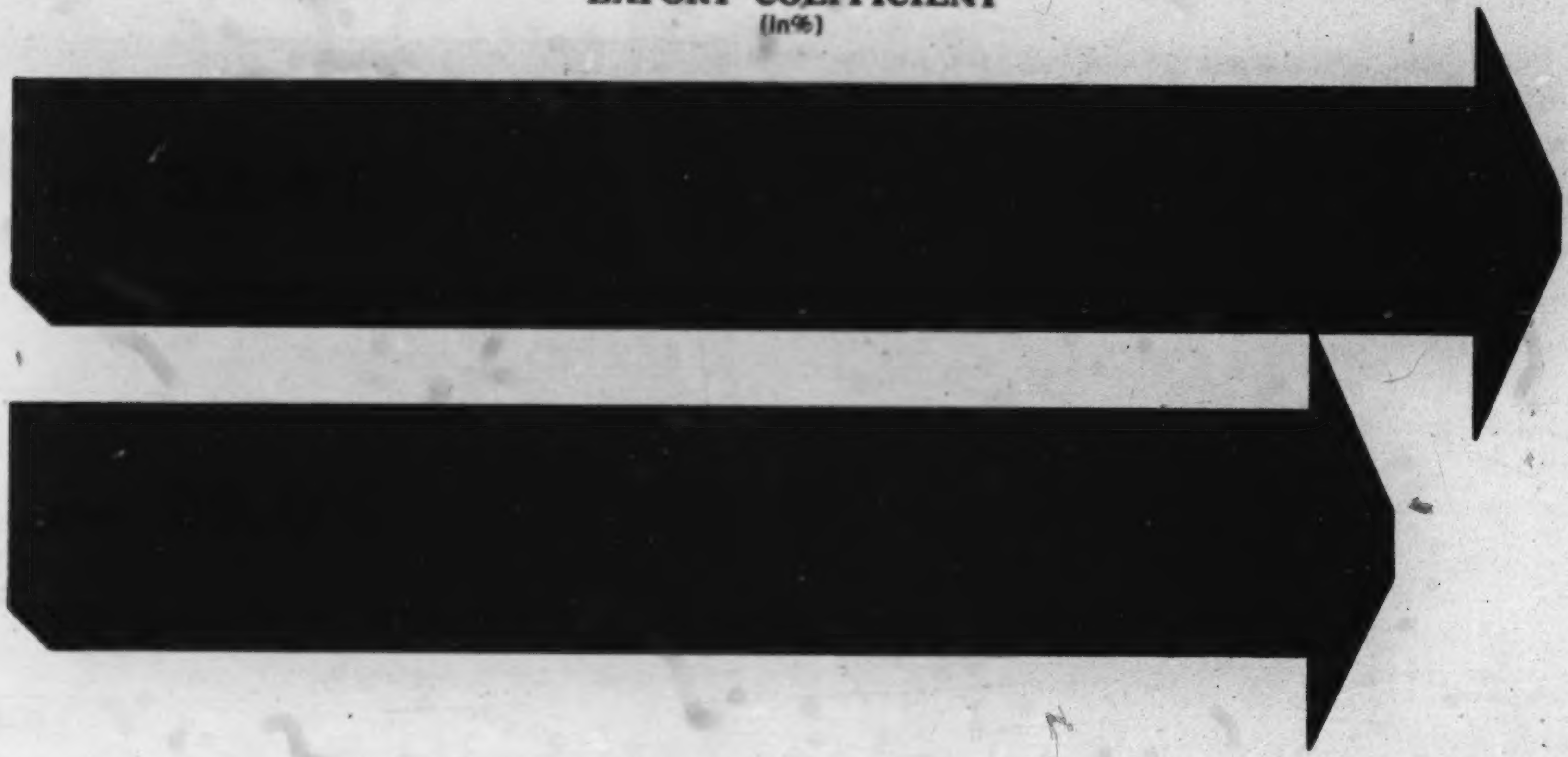
Exports of crude oil will be increased by 50% between 1969 and 1973, to reach about 63 million tons in 1973.

Sales of gas abroad have followed the same tendency and will occupy, in 1973, the second place in the order of our exports.

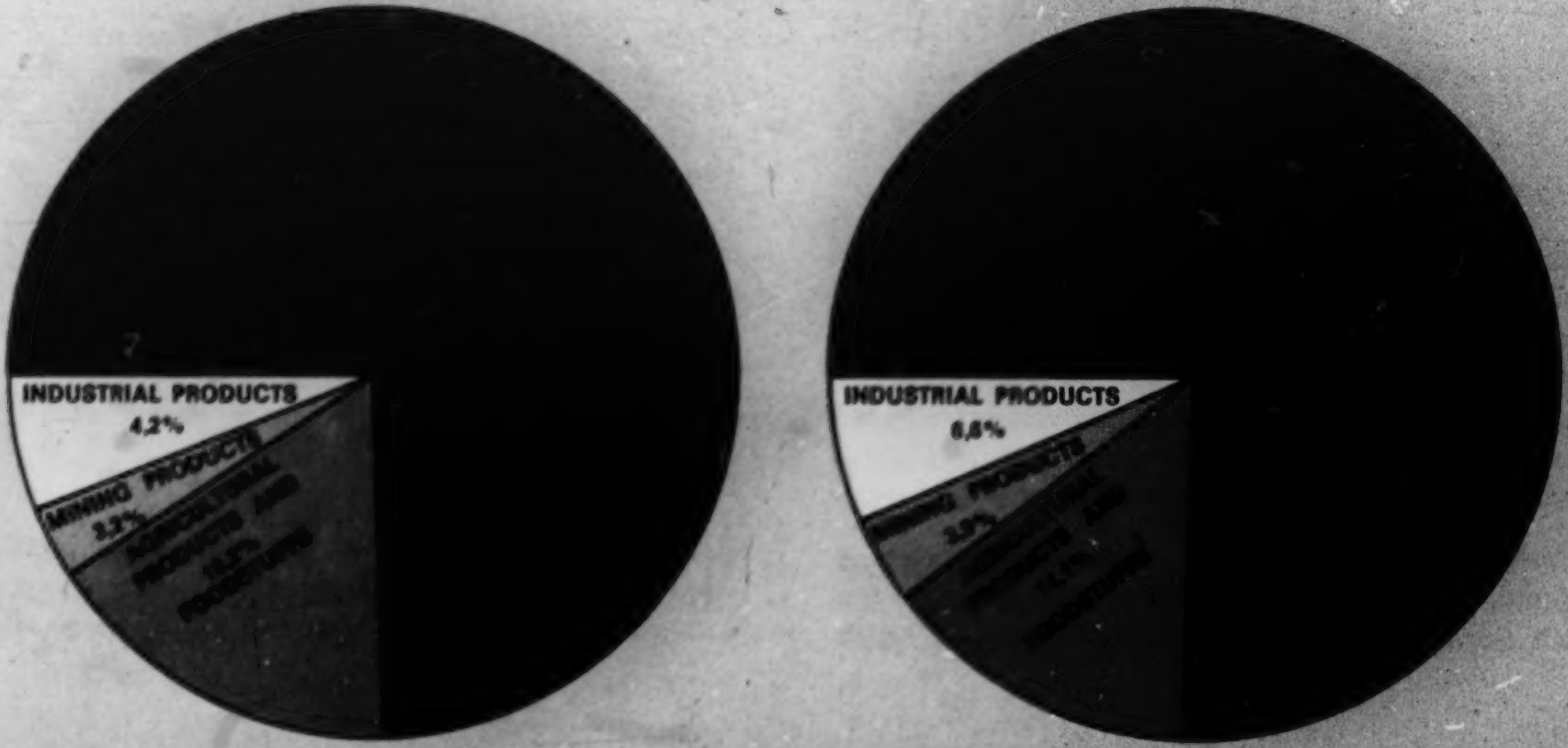
New exports will figure in the balance of payments with the sale of azote fertilizers, phosphate fertilizers, fuel oils etc.

As for the other industrial activities (food, textiles etc...) they must, if they are to meet the target of increasing their exports threefold, adapt their capaci-

EXPORT COEFFICIENT
(In%)



EXPORTS DISTRIBUTION
(In%)



ty of production and increase their efficiency so as to compete on foreign markets from the standpoints of both price and quality.

Imports

The value of imports should increase by 62% during the period of the Four-Year Plan. Their overall annual rate of expansion is 10%, surpassing that of the economy as a whole. It is therefore evident that the coefficient of imports (relationship between imports and the Gross National Income) will increase as follows:

COEFFICIENT OF IMPORTS
(Imports and Gross National Income in billions of DA)

	1969	1973
Imports	4,85	7,70
Gross National Income	14,60	21,08
Coefficient of Imports	32%	37%

As the policy of economic development is synonymous with substitution for imported products or the replacement of imports by goods produced locally it involves, in theory, a reduction of the coefficient of imports but only in the long term, once the economic structure has been diversified by means of investments resulting in the coefficient's being raised. It can, therefore, be postulated that the Algerian economy is now in a phase of accumulation whose consequence is to increase the value of imports at a rate higher than that of the gross national income. The growing dependence of the Algerian economy on the outside world appears as a temporary necessity prior to the phase marking a decline in the coefficient of imports, which accompanies long-term economic development. Insofar as an appreciable increase in exports is anticipated under the Plan, there will be no particular problem regarding the financing of these increased imports. The absolute and relative value of these imports can be broken down as follows:

ABSOLUTE AND RELATIVE VALUE OF IMPORTS
(in billions of DA)

	1969		1973	
Consumer goods	1,8	37%	1,65	21,4%
Goods for production	2,4	49%	4,15	52,6%
Services	0,6	14%	1,90	26,0%
TOTAL	4,80	100%	7,70	100,0%

The absolute and relative proportions of total imports that consists of goods for production (both intermediary products and equipment) and which is steadily on the increase, are directly linked to the enormous programme of investments for the priod of the Plan and are, given the underdeveloped structures of our economy, symptomatic of an applied development policy.

Importations of consumer goods, of which the absolute value tends to decline, will consist of products destined for mass consumption (cereals, for example). This reduction in imports is due:

- *To substitution for imports, i.e. the replacement of imports by locally produced goods (textiles, mechanical and electrical products etc.);*
- *To the policy of general austerity aiming to limit the expansion of consumption;*
- *To the necessity to cut down on the expenditure of foreign currency for superflous consumption, so as to use it for the purchase of equipment and interme-*

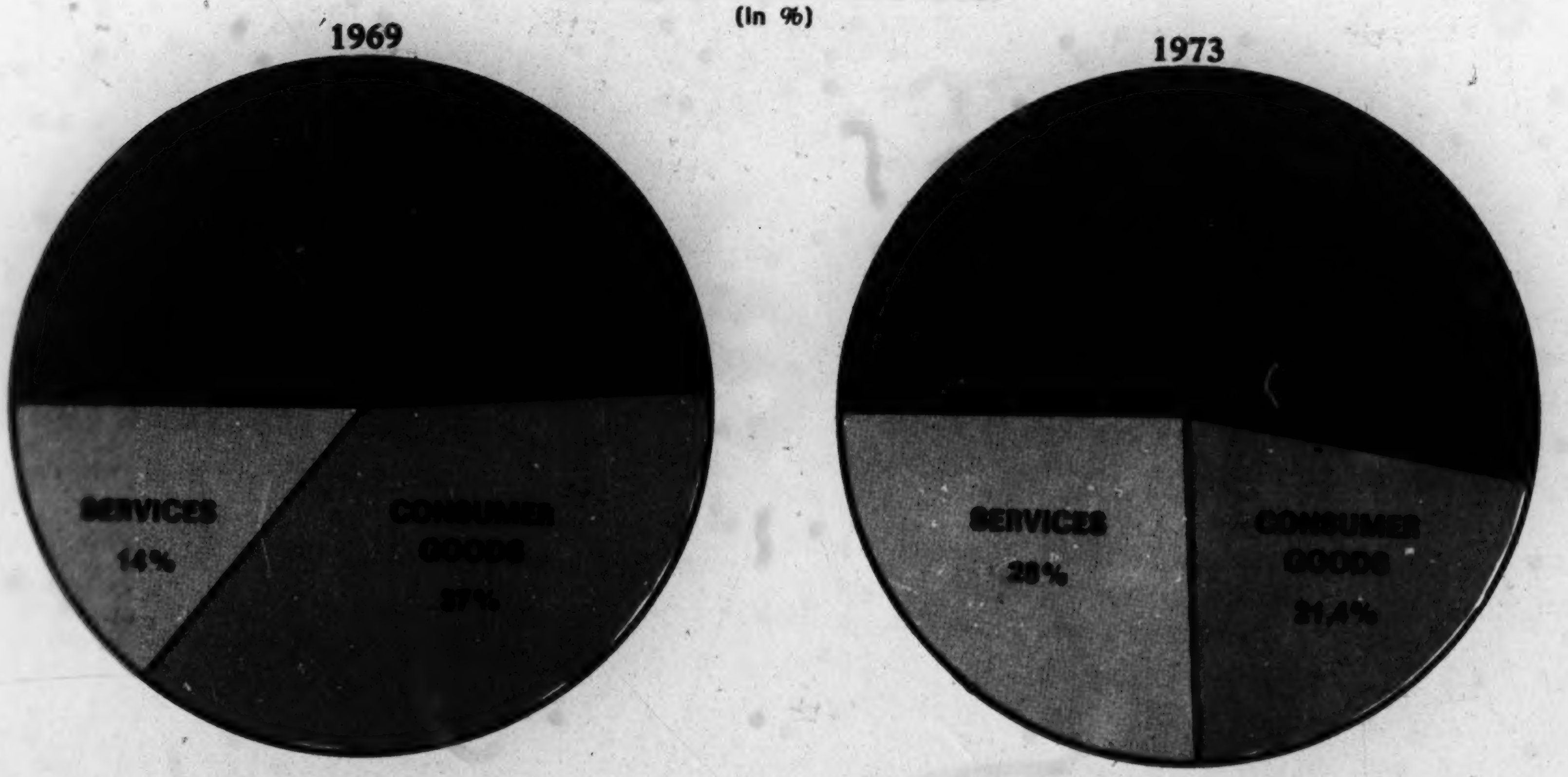
diate products needed for our agricultural and industrial programmes.

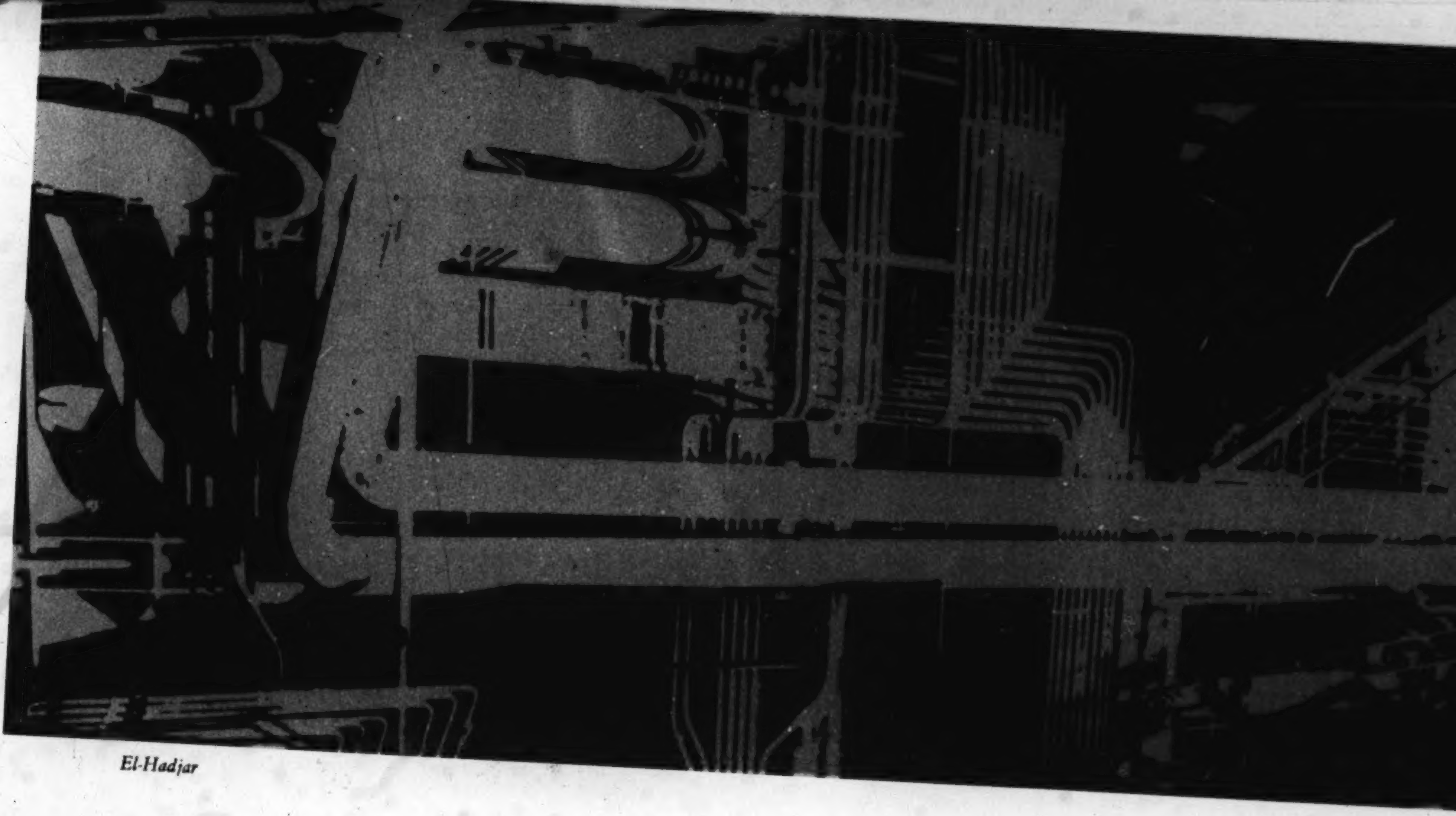
The plan for foreign trade, so basic to the implementation of the Four-Year Plan as a whole, aims to make every effort to achieve the goals of:

- *Winning new export markets for agriculture (wine, citrus fruits, etc.) and for industry (steel, hydrocarbons, shoes etc.);*
- *Diversifying our networks of exchange so as to make our national economy more truly independent;*
- *Deriving the maximum profit from the country's specialities of production.*

IMPORT COEFFICIENT
(in %)

IMPORTS DISTRIBUTION
(in %)





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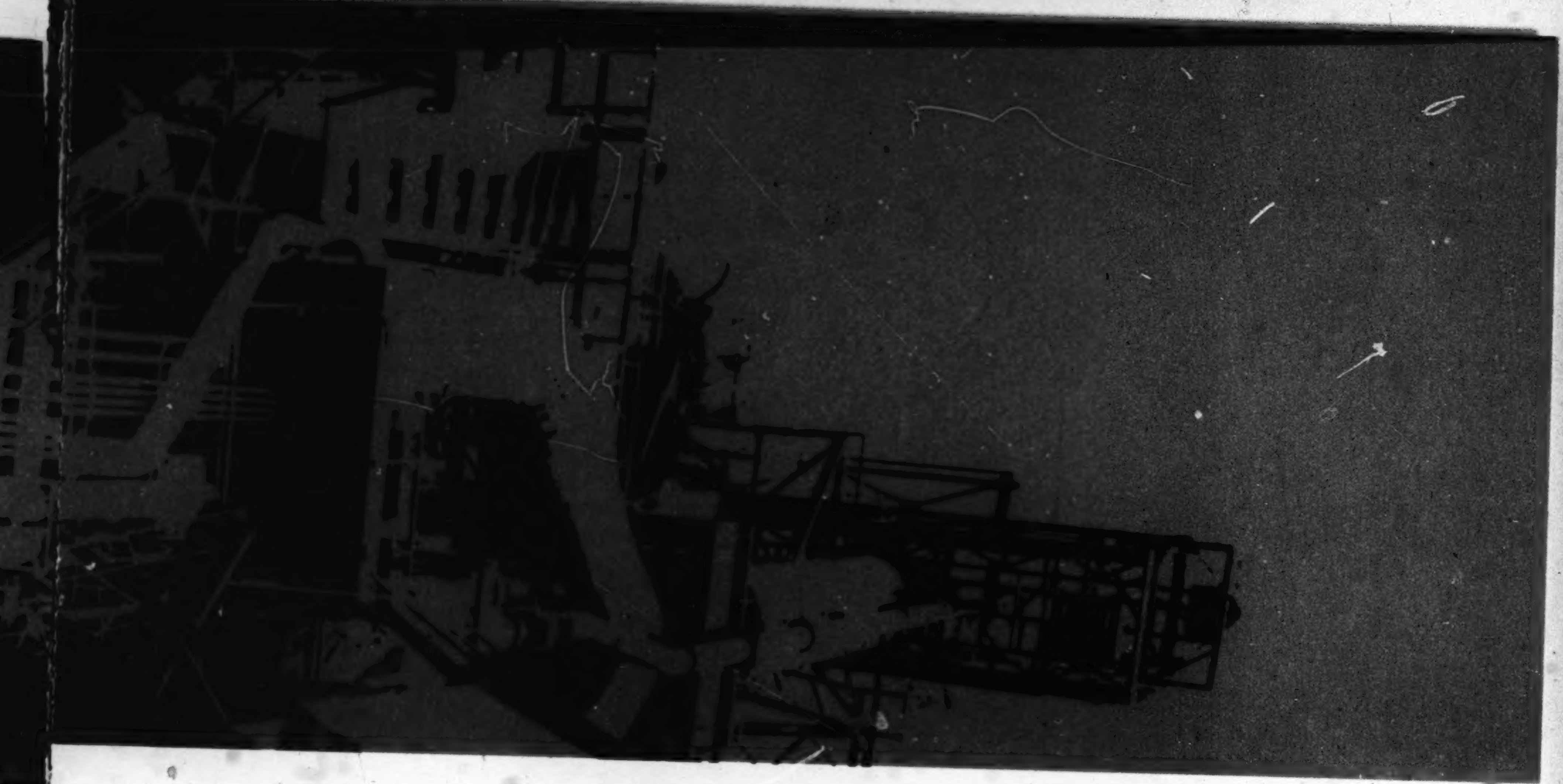


The financing of the plan

Private sources of investment

It is a well-known fact that one of the hindrances to the development of an underdeveloped economy derives from a paucity of savings or of money that can be invested.

An underdeveloped country cannot even count on foreign capital, as

- *It is available under rigid conditions, and is not plentiful;*
- *Its use has unfortunate consequences on the economy, both from the standpoint of the distribution of the national income and from that of the control of decision-making (in the case of private investments).*

The factor of political independence must be taken into account in the case of aid from foreign Governments.

In addition to these difficulties, an underdeveloped economy runs into various obstacles which limit private savings. These obstacles derive from:

- *The effects of imitation, which lead people to adopt a type of consumption identical to those living* *in countries with a high per capita income. In the case of Algeria, it is well known that the purchase of saloon cars by certain socio-economic groups with a monthly income of less than 1,000 DA derives from this sort of imitation which limits savings in that it entails expenditure on luxuries;*

- *The phenomenon of hoarding, which leads people to withdraw a part of their income from the circuit of the economiy in the form of money " hidden under the mattress "; or by buying precious metals or even " hard " foreign currency, instead of using it for productive investment.*

These two factors have a negative influence on the volume of savings in Algeria. It should, however, be mentioned that the promulgation of a Code of Investments and the expansion of business in recent years has led to an increase in both private bank deposits and the amount of private investments. Private savings as a whole remain, however, negligeable.

This is because of two other objective factors:

- *The small per capita income;*
- *The nationalization of the means of production, which brings cash surpluses under the control of the State.*

Insofar as 80% of net private industrial investments will be made in the hydroacrbons industry during the period of the Plan, it appears that this investment will be, for the most part, by foreign capital. The remainder, being composed of investments in light industry (textiles, food industries etc.) only requires relatively small amounts of capital and will be covered by the private investment of Algerians, as is the case for almost all the 1,000 private firms brought into being during the period of the Three-Year Plan.

In the private sector of agriculture, only a very small part of the total investment (i.e. 1.4 billion DA) will be derived from private capital. The rest, amounting to 1 billion DA, will come from the State in the form of Government-financed economic and rural development projects, loans to the traditional sector and projects to relieve unemployement.

Investment from public sources

The role of public investment

A few rules can be held to govern the State's action in the financing of economic development:

- *The running expenses of the general Budget must be limited as far as possible, so as to free surpluses from current activities to meet expenses for equipment needed for industrialization;*
- *Apart from long-term investments (i.e. in steel), or improductive investments (i.e. in economic and social strutcures), the State finances public enterprises by means of loans that have to be repaid. This procedure has various advantages:*
  - It obliges these enterprises to be efficient and to make a profit;
  - It ensures that money will be made available to the State to finance other projects at a later date;
  - It limits the need to issue new currency, thus avoiding the risks of a rise in prices and of inflation.

The issuing of new currency should follow the implementation of programmes of investment and production.

These considerations gave rise to the Financial Law of 1970, which explicitly quotes them in its article 29.

Given this general framework, it is proposed to use the temporary and long-term resources of State funds to finance Public investments. The State's permanent income essentially derives from direct and indirect taxation of the public which accounted, in 1969, for 50% of the State's permanent income.

The following factors should lead to an increase in this income from taxation:

- *An increase in the number of taxeable incomes linked to the creation of new jobs, which should number 268,000 for the period of the Plan;*
- *An increased number of sources of revenue, due to the greater quantity of goods produced;*

- *A more selective indirect taxation according to the type of goods produced. This measure accords with the general policy of austerity and the redistribution of real income between the various socio-economic groups.*

To this direct and indirect taxation of private individuals should be added the State's revenues from customs and excise on public enterprises and on the hydrocarbons sector.

The contribution of this sector the State funds relates to various factors like the increase in the volume of production, the part played by the State in this sector and the revision of the agreements relating to hydrocarbons that were concluded between France and Algeria in 1965. Oil revenues continued to make an important contribution to the financing of development. It may be noted at this point that the State derives an enormous income from sources other than taxation and that this income represented, during the period of the Three-Year Plan (1967-69), 34% of the country's income from internal sources, which gives a corresponding influence to this source of revenue.

During the period of the Plan, the State's income should show a surplus over its running expenses, which will render possible expenditure in the following categories:

- *Definitive grants with no call for re-imbursement, which are made to certain activities (education, vocational and other training);*
- *Temporary grants needing to be repaid in a given period, made to productive public enterprises showing a speedy rate of development (textiles, shoes etc.). To this surplus should be added the temporary resources of the deposits in the Post Office Bank, the Savings Bank etc., which also help to finance investments in the public sector.*

In any event, there is no risk of Algeria's budget showing a loss between 1970 and 1973. The emission of paper money should, as has been noted, counterbalance the State's activity in financing investment or production. For the moment, at least, there is a real counterweight able to compensate for the inflationist effect of issuing new money. This possible emission of paper money is an outcome of the considerable investments predicted under the Four-Year Plan.

The amount of investments called for, and the need to import certain items of equipment and intermediary goods, together explain why we do not exclude loans from outside sources. This outside help consists of:

- *Government-to-Government loans;*
- *Agreements for deferred payments with foreign firms selling goods in Algeria. Such agreements are sought when the supplier offers the best financial conditions (price of goods, quality, speed of delivery etc.). This selective policy is rendered possible by the monopoly of foreign trade exercised by most sectors of economic activity (mechanical engineering, steel ect...).*

Generally speaking, the amount of outside help will be determined in function of:

- *The state of Algeria's balance of payments;*
- *Her capacity to repay loans made on a middle-or long-term basis.*

This is why these loans will be used to finance industrial projects for the manufacture of goods that will be competitive on international markets, i.e., projects embodying their own means of repayment.

In the context of our objectives of economic development within a given period, the essential factor is the changing of economic structures by diversifying of the productive system and breaking with those structures inherited from the colonial era. Financial problems can be considered secondary. In any event, a decision as to how far a country should get into debt should not be based on the overall cost of investment or on the gross national income. It should relate to the exportation of goods and services from the country in question and to its income from abroad; it should, moreover only take account of the profitability and utility of the annual debt, and not the accumulated total of the nations foreign debt. Given these considerations, if one is to appreciate

Algeria's capacity to repay loans one should take into account;

- *The amount of the existing debt and the period in which it must be repaid;*
- *The projected inflow of foreign currency. This is influenced by such factors as:*
  - The sums sent home to their families by Algerian workers overseas (particularly those in France, Belgium and Western Germany);
  - The anticipated development of the country's traditional exports (crude oil, gas, " vin ordinaire " etc...) and of new exports (shoes, good quality wine, fertilizers, fabrics, steel etc...)

If one admits that these two elements of the balance of payments are currently showing a favourable trend, it will become evident that Algeria's international solvency no longer presents any problem.

The problem of inflation

Analyses of rising prices distinguish between two types of such increases:

- *inflation deriving from costs, and*
- *inflation deriving from demand.*

In the case of an underdeveloped economy where the State plays an active part in economic life, instances of inflation deriving from costs, i.e. reflecting a conflict between socio-economic classes, are impossible for various reasons;

- *The large amount of overt or disguised unemployment lessens the likelihood of the worker's making wage demands;*
- *The existence, in Algeria, of an important socialist sector renders wage demands even less probable;*
- *The fact that the workers are often misled as to their monetary situation, in that they are unable to see the connection between the average level of prices and their nominal income.*

On the other hand, inflation arising from demand, i.e. that involving " too much money chasing too few goods ", is possible because of the often temporary shortages which characterize the underdevolped economy.

Economic policy should therefore endeavour (as in the case of the Four-Year Plan), to avoid an unduly rapid development of demand, by taking steps to

- *Eliminate any budgetary deficits;*
- *Increase taxation (of the indirect variety);*
- *Employ the greatest caution when issuing additional money.*

In practice, the Government should devote its attention not so much to avoiding defecits in the Budget as to the comparitive rates of expansion of all sources of revenue and of the Gross National Income. The stability of the general level of prices implies, in effect, that the rate of expansion of the sources of revenue will not go beyond that of the economy.

It can nonetheless be said that, given the experience of other under-developed economies, that the policy industrialization engenders a certain degree of inflation, in that it:

- *Brings about an increase in employment and income, giving rise to an increase in demand;*
- *Implies investments taking months or years to mature, and which thus do not immediately increase the volume of goods available.*

Algeria is, however, different from other underdeveloped economies in that she has relatively important reserves of foreign currency, enabling her to combat inflationist pressures by importations.

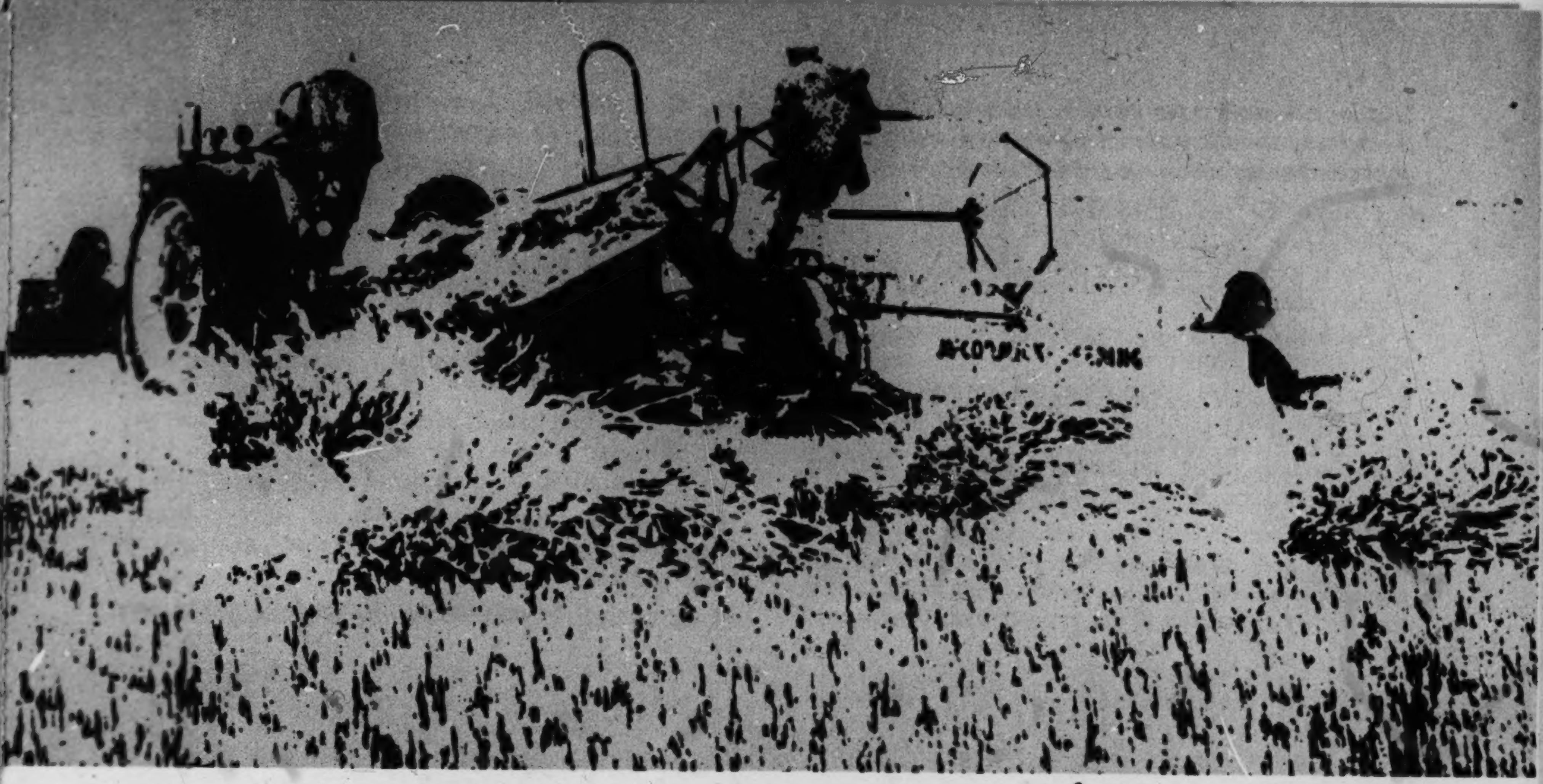
To sum up, Algeria's monetary and financial policy can be reduced to an attempt:

- *To expand the national economy whilst maintining the stability of prices;*
- *To arrive at a better distribution of the national income from the point of view of regions and socio-economic groups.*

One of the major choices that has to be made by the Government of an underdeveloped country that has only recently gained its independence, concerns the selection of the productive sector to be developed. Should the country be industrialized by the introduction of manufacturing industries and an advanced technology, or should the primary specialization of production be maintained?

Projections

for separate sectors



The relationship between Agriculture and Industry

The choice of agriculture and its limits

The priority development of agriculture is commonly justified by the following arguments:

- *agricultural production does not call for a great deal of capital (sluices, pumps and fertilizers) and its expansion need not mobilize large-scale financial resources;*
- *whereas industrial investments often take a long time to mature, investments in agriculture tend to increase short-term agricultural production;*
- *agricultural production, as it increases, contributes to the diminution of imports of consumer goods and can even increase exports and, with them, the country's revenues of foreign currency. It needs, therefore, to be expanded to build up reserves of foreign exchange, an essential element of economic development;*
- *mechanization and agricultural investments introduce techniques that do not reduce the need for labour*

(unlike industrial investments), and which thus serve to increase the efficiency of agricultural work whilst at the same time promoting its stability.

But it can be replied to these arguments that the specialization of production in agriculture will be unable to promote economic development, in that the primary sector:

- *only exercises a slight influence over the other sectors;*
- *has a relatively low level of productivity as compared to that of the industrial sector;*
- *has archaic social and cultural attitudes, that are not compatible with the dynamism inherent in economic development;*
- *shows only slight variations in the prices of its products and in the income derived from them, which hinders the expansion of its exports and, consequently, all possibilities of economic development by specialization in the exporting of agricultural produce.*

Once one fully realizes the deficiencies of giving the priority of investments to agricultural production, one is led to consider the arguments in support of the choice of industry.

The choice of industry

When speaking of policies of economic growth (the universal aim of all Governments), the emphasis is often laid — in underdeveloped countries — upon the need for industrialization. Industrialization, in the underdevolped countries:

- *contributes to putting an end to the overt or disguised unemployment which reigns in both the countryside and the towns;*
- *by raising the national income leads to an increase*

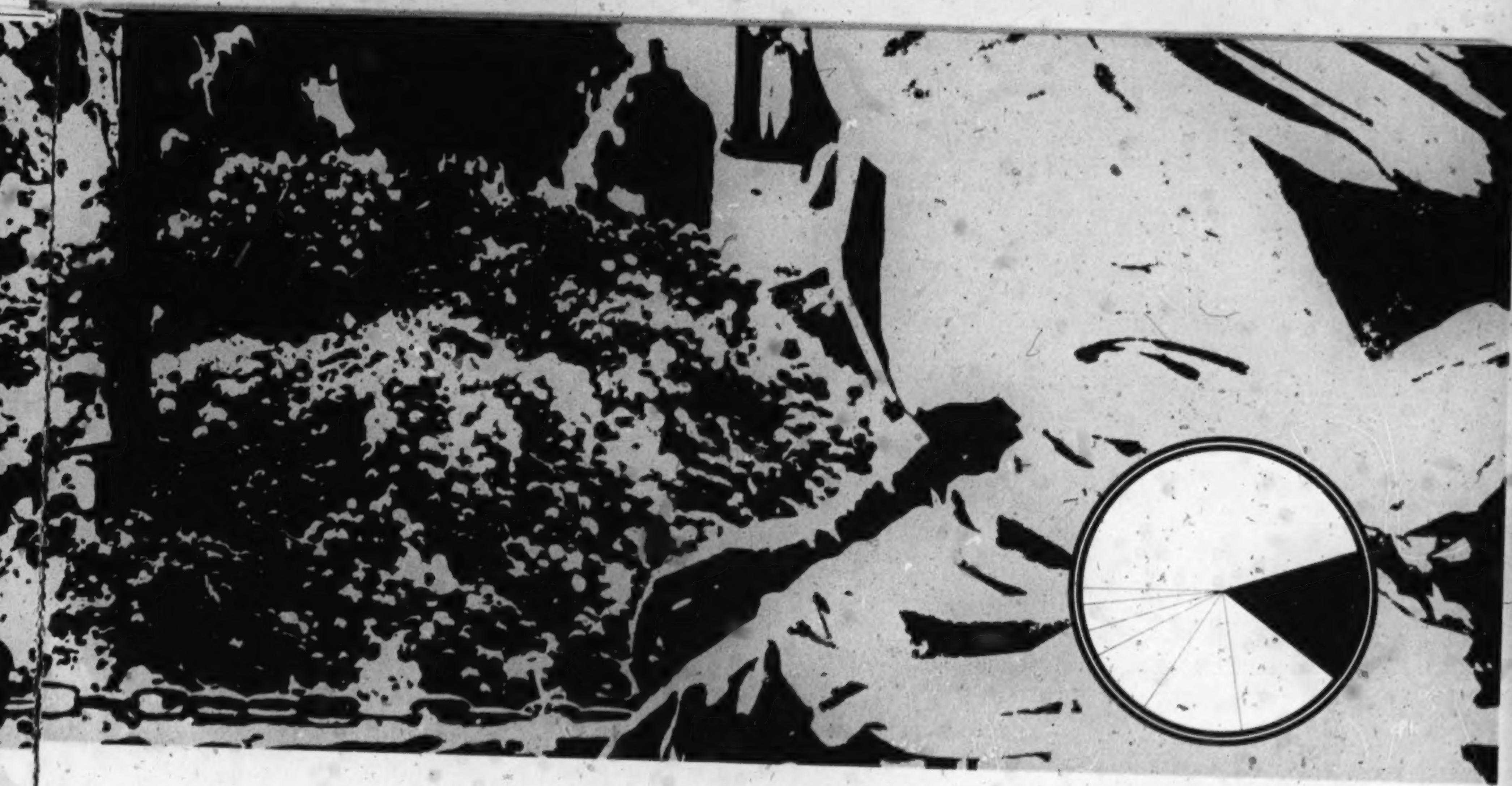
in the demand for agricultural produce and thus stimulates the production of the primary sector;

- *by replacing imported manufactured goods by those produced locally, tends to cut down on expenditure from gold reserves and the country's reserves of foreign currency;*
- *introduces progressive attitudes among the population, which will have a long-term beneficial effect upon the economic environment, in that this environment will be transformed and more able to absorb technical progress.*

These arguments in favour of industrialization can be summed up as saying that a process of this kind, resulting in an extension of the secondary sector, is the only one able to determine economic growth and, in turn, stimulate the growth of other sectors (in particular agriculture).

The accumulation of capital involved in industrialization represents the minimum effort needed to break the vicious circle of underdevelopment, whose major characteristic is the oscillation of per capita income around a low mean figure. The accumulation of industrial capital, by increasing productivity, engenders a surplus which can once more be invested, thus rendering growth a self-sustaining process.

Although these theses form the basis of the Algerian Four-Year Plan (1970-73), it should be noted that the Plan does not entirely neglect agriculture, in that this sector plays a strategic part in the process of industrialization. It follows that agricultural economic policy between 1970 and 1973, by determining a rise in productivity in the countryside and a consequent increase in real income, will both directly and indirectly increase both outlets and scales of production of industry (textiles, food, steel, mechanical engineering etc.).



The evolution of agriculture

The equipment programme for agriculture embodies exceptionally important projects in several fields: irrigation, stock-rearing, re-afforestation, sheep-farming etc. ... The overall pattern of investments in this sector should allow considerable structural modifications to be made, whose effects will only later become apparent. This series of projects should bring about a very marked increase in agricultural production, owing to the intensification of the use of what is now agricultural land, together with the conversion of virgin land to farming.

The structure and the trends of the investments embodied in the programme of agricultural development essentially aim at the consolidation and augmentation of potential production and the setting up of the technical structures needed for agricultural development.

The sums involved each year in this mass of agricultural investments (throughout the period of the Plan) are given in the following table:

AGRICULTURE: ANNUAL INVESTMENTS

(in billions of DA)

1970	1971	1972	1973	Total	Structure (%)
0,720	0,910	1,110	1,400	**4,140**	15%

When one examines the distribution of the mass of agricultural investments over the separate branches of agriculture, one readily perceives the preponderance of hydraulic projects (irrigation work) and of investments in agricultural equipment, which respectively account for 26% and 19% of overall agricultural investments.

TABLE SHOWING THE DISTRIBUTION OF INVESTMENTS OVER THE DIFFERENT BRANCHES OF AGRICULTURE

(in billions of DA and in %)

Branches	Absolute Part	Relative Part
Irrigation	1,100	27%
Forests, conservation and reconstitution of soils	0,420	10%
Vegetable production	0,644	15%
Animal production	0,450	11%
Equipment	0,780	19%
Infrastructures	0,289	7%
Research and Studies	0,040	1%
Unemployment Relief, Loans etc.	0,294	7%
Fishing industry	0,123	3%
TOTAL	**4,140**	**100%**

If one re-distributes these figures over the major sectors of activity, one obtains:

Irrigation Projects	1.100
Reconstruction and conservation of the soil	0.420
Increasing Production	1.997
Infrastructure	0.329
Projects to help the poor agricultural sector	1.000

(a part of this investment comes under the heading of " irrigation ").

This data leads us to make various observations laying stress on:

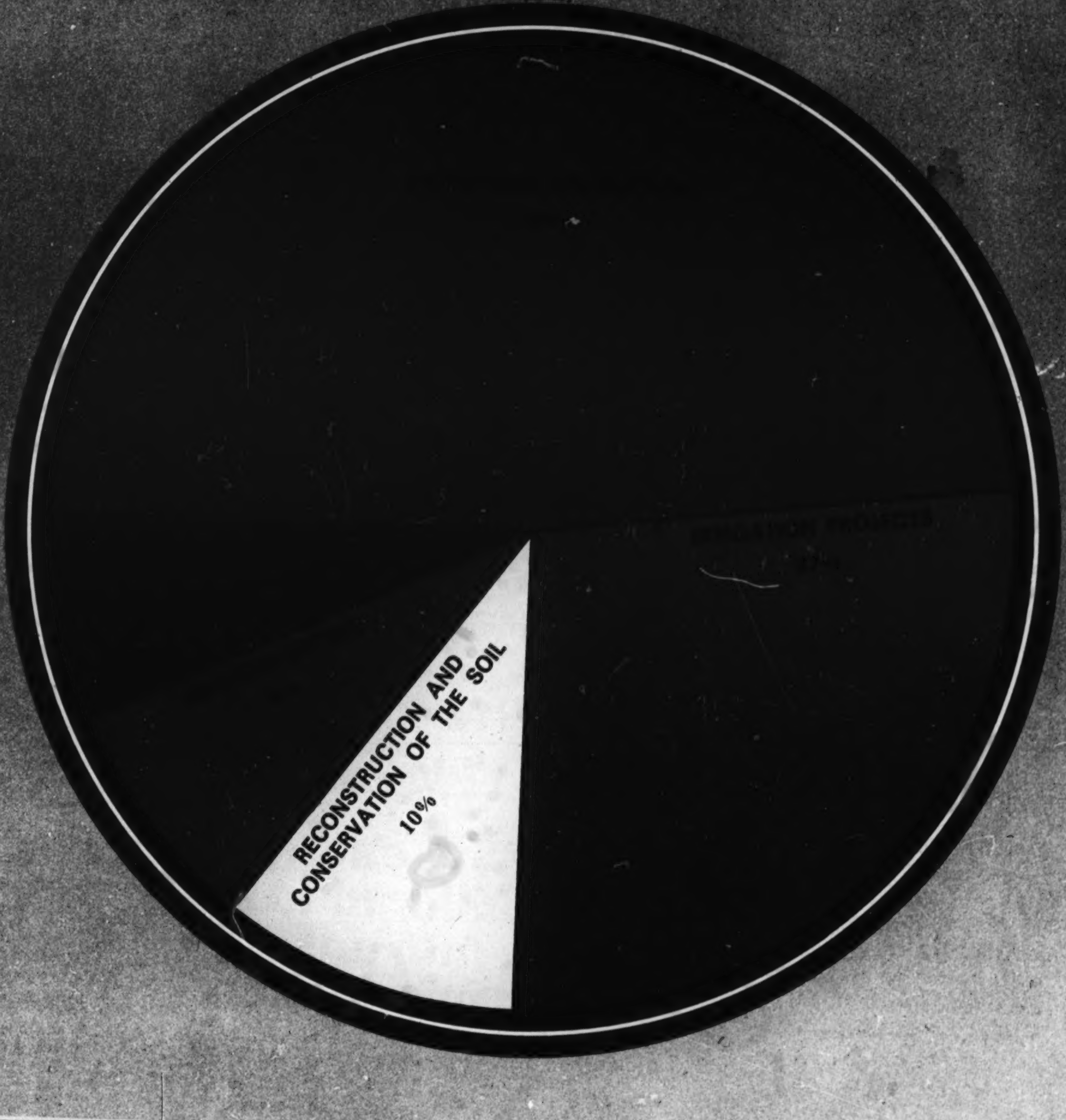
- *the proportion of investments (about 50%) destined to increase production;*
- *the readily small proportion allocated to infrastructures (stockage, slaughterhouses, milk industry);*
- *and, finally, the relatively high proportion of investments envisaged in the traditional sector of agriculture (i.e. almost 25% of total investments).*

Given these facts, it seems a good idea to make a successive study of the major agricultural projects to be undertaken in Algeria.

Irrigation

The objective for 1980 is to irrigate 500,000 hectares. The area irrigated at the present time is evaluated at almost 300.000 hectares. This scheduled growth of 200,000 hectares means that, during the period of the Four-Year Plan, there will have to be brought together all the technical and human requirements for a rhythm of achievement at least equal to 20,000 hectares per annum throughout the ten-year period. Under the provisions of the Four-Year Plan, 1.1 billion DA will be spent on irrigation projects and will allow 41,000 hectares of land to be irrigated for the first time. The following table shows the distribution of this land among the various Wilayas:

AGRICULTURE
DISTRIBUTION OF INVESTMENTS OVER THE DIFFERENT BRANCHES
(in %)



No. OF HECTARES TO BE IRRIGATED IN EACH WILAYA

Annaba	6,970
Aures	1,430
Constantine	1,600
Setif	1,490
Grande Kabylie	2,300
Algiers	1,300
Titteri	5,050
El Asnam	1,865
Mostaganem	1,000
Tiaret	1,865
Saida	3.500
Oran	950
Tlemcen	4,900
Saoura	4,350
Oasis	2,490
TOTAL	**41.060**

This development of the area irrigated represents a fivefold increase as compared with the work done in 1969. In addition, improvements are to be carried out in the irrigation of areas already equipped — these will affect 40,000 hectares. A final 10,000 hectares will be improved by drainage. The total area to be affected by the Four-Year Plan amounts to 92,000 hectares.

The reconstitution and conservation of the soil

The aim of this campaign is the progressive reclamation of all land lying fallow, which is to be brought back under cultivation by 1980. The area of land lying fallow at the moment and which is to be reclaimed under this project is certainly more than a million hectares in area. A programme of soil reconstitution and conservation has been drawn up to combat the harmful effects of erosion. The regions included in this project have been selected in accordance with a number of criteria, and are as follows:

Beni-Slimane (Titteri)	300,000 hectares
South-Eastern Tell	700,000 »
Tlemcen-Tessala	200,000 »
Beni Chograne-Eghriss	125,000 »
Sersou-Mont de Tiaret	150,000 »
Western Dahra	125,000 »

This programme will entail an investment of some 0.420 billion DA and will involve the following specific projects:

Tracks (both new tracks and improvements)	10.100 km.
Clearing land to prevent the spreading of fire	34.000 ha.
Settling bounds	864.000 »
Houses for foresters	433
Look-out posts	125

Investments linked to increasing production

(Not taking into account either irrigation or soil projects). These investments represent approximately one-half of proposed investments in the agricultural sector - or 2 billion DA.

These investments can be subdivided as follows:

INVESTMENTS FOR AGRICULTURAL EXPANSION
(in billions of DA)

Crops	0.644
Animal production	0.450
Equipment	0.780
Fisheries	0.123
TOTAL	**1.997**

The aim of the investments is as follows:

- *To increase the value of production by 0,7 to 0,8 billion DA (this increase is planned in the specific sectors of cereals, crops for industry and market produce, citrus fruits, meat and fish, milk);*
- *To set up structures for stock-breeding and the development of seeds and plants so as to intensify and increase the potential of production (experimental nurseries, production of all kinds of seeds and the constitution of a highly productive genetic strain of cattle which will enable us to put an end to the importation of pedigree stock);*
- *To rejuvenate and enlarge the principal means of production. This result is to be achieved by means of:*
  - A programme of agricultural mechanization, involving traction equipment, harvesters and all other tractor-drawn equipment;
  - Tree-planting projects (limited for the time being by the small numbers of seedlings available);
  - The setting-up of the structures needed for stock-rearing;
  - The provision of modern equipment for the fisheries;

The following table shows the distribution of agricultural investments linked to increasing production:

INVESTMENTS AIMING TO INCREASE PRODUCTION IN THE VARIOUS SECTORS OF AGRICULTURE
(in billions of DA)

Animal production and fisheries	
sheep-farming	0.150
cattle-rearing	0.151
improvement of strains and animal health	0.016
other kinds of stock-rearing	0.060
aviculture and apiculture	0.067
fisheries	0.123
Vegetable production	
tree seedlings	0.06980
seeds	0.01000
crops for industry	0.03030
cereals and market crops	0.00258
vineyards	0.19400
tree plantations and orchards	0.28000
improvements in tree cultivation	0.05610
Equipment	
socialist sector	0.620
private sector	0.160
Fisheries	
trawlers (and equipment)	0.076
renovations	0.035
aid to the co-operative sector and research	0.012

Two primary objectives have been fixed for animal production:

- *To meet the demands of the home market for such produce as meat, milk, eggs and honey;*
- *To set up the structures need for stock-rearing (fodder, veterinary services, organization of production and marketing).*

To enable this programme to be carried out, 0,450 billion DA are to be made available to various stock-rearing concerns, of which the greater part are concerned with raising either sheep or cattle. The amount allocated to cattle-farming amounts to 0,151 billion DA for:

- *The purchase of 30.000 heifers (of which 20.000 are to be imported) and the housing of 30.000 cows and 20.000 calves;*
- *The setting up of a milk control service;*
- *The setting up of a stock improvement service composed of 7 improvement stations, 2 training farms and one national centre for the production of semen, designed to meet the needs of existing centres for artificial insemination.*

As regards sheep-farming, development projects follow two distinct trends:

- *The mixed farming found in the North (i.e. sheep-rearing plus crops);*
- *Traditional sheep-farming in the inland regions. In this sector, an allocation of 0,15 billion DA has been made with a view to:*
  - Setting up new structures aiming at the adaptation of breeding methods, the ownership of flocks and the use of sheep-run to meet the imperatives of development and the country's demands for both lamb and mutton.
  - Improving facilities on the sheep-runs by organized campaigns against disease, hunger ad thirst, so as to enable production to be both organized and improved;
  - The integration of this traditional sheep-farming into the rest of the national economy.

All this will imply the building of 2.000 shelters and 1.500 sheepfolds, the improvement of 500.000 hectares of land, the setting up of 10 reproduction centres, the digging of 750 wells, the purchase of 30 specialized trains etc.

And finally, in the fishing sector, 80.000 fully-equipped trawler/drifters are to be purchased during this period, thus enabling production to be doubled and the consumption of fish increased.

The programme of vegetable production is dominated by investments in both vineyards and orchards, 0,600 million DA are to be allocated to this sectors, i.e. 93% of investments in crops and 14% of total agricultural investments. This concentration of investments is aimed to overcome the considerable backwardness that has accumulated in both our vineyards and our orchards. To encourage, intensify and adapt the production and distribution of selected seed in the field of industrial crops (cotton, beets, sunflowers and tobacco), the Government envisages spending 0,04 billion DA. The newly-planted land will cover an area of 100.000 hectares, distributed over the following crops:

Vineyards	15,000	hectares
Citrus fruits	2,000	»
Olive-groves	30,000	»
Nuts and fruit	20,000	»
Palms	2,000	»
Others	25,000	»

To this should be added the 21.000 hectares of "banquettes" and 21.000 hectares of "cuvettes" to be set up in a project to improve existing vineyards. To enable these production targets to be met, 0,78 billion DA is to be spent on machinery during the Four-Year Plan. Purchases of machinery are to be distributed over the following items:

PURCHASES OF MACHINERY BROKEN DOWN BY SECTOR

	Socialist Sector	Private Sector	Total
Tractors	8.000	4.400	12.400
Combined harvesters	8.000	2.000	10.000
Harvester-binders	400	—	400
Tractor-drawn and other equipment	378	55	433
Total No. machines	**16.778**	**6.455**	**23.233**
TOTAL (in billions of DA)	0,378	0,055	0,433

One should note the important place reserved for equipment other than tractors and harvesters, which accounts for 0,33 billion DA, or 55% of the investment in agricultural machinery. This bias is even more pronounced in the socialist sector where 60% of investments are devoted to this type of equipment.

To these purchases of equipment should be added a whole series of qualitative projects aiming to renovate or increase equipment:

1) *It the socialist sector, these projects are the following:*

- The scrapping of all equipment which no longer works or which is of types now out of production;
- The combining of purchases;
- The choise of sources of supply with a view to imminent national manufacturing projects;
- A revision of the system of credit for major repairs, so as to make it more flexible;
- The establishment of an inevitable relationship between small-scale repairs and scales of expenditure on different crops.

2) *In the traditional sector, the projects are:*

- The definition of the exact purpose of the C.C.R.A. equipment department, so as to adapt it to actual needs;
- A revision of the charges for the use of this equipment;
- A revision of the criteria for granting loans;
- A better choice of priority equipment.

Agricultural structures

The setting up of a certain number of supporting structures needed for agricultural development constitutes one of the provisions of the Plan.

Storage

The cereal consumption predicted for 1973 is 26 million quintaux, whereas present-day storage capacity is no more than 10,3 million quintaux (which does not take into account deficient storage provisions which are to be suppressed, i.e. about 2,2 million quintaux). In addition, from 1970 to 1973:

- *The storage capacity of concrete silos will be increased by 1,6 million quintaux;*
- *Facilities at the port of Algiers will be enlarged to give a capacity of 25.000 quintaux in a first phase;*
- *The improvement of existing storage space with a capacity of 36 million quintaux;*
- *Projects for new storage units for dried vegetables are to be implemented (400.000 quintaux of sunflower seeds, 270.000 quintaux of cotton).*

In the field of fodder, which constitutes a vital element in animal production, barns and silos are to be built in various of the farms concerned in this field with a capacity of 2.500.000 m^3 and 250.000 m^3 respectively.

These projects will imply an investment in the order of 0,15 billion DA.

Slaughterhouses

An urgent priority is the reconstruction of most of the country's slaughterhouses, involving moving them to the outskirts of the towns and providing them with modern slaughtering equipment and meat-handling apparatus, cold storage units and gut-dressing units.

Investments have been approved in the order of:

- *0,004 billion DA for slaughterhouses of 2.500 tons;*
- *0,002 billion DA for 1.000-ton slaughterhouses;*
- *0,001 billion DA for 500-ton slaughterhouses.*

Parallel to these investments, it has been decided to construct cold storage units in the large slaughterhouses of Annaba and Oran, and to open 30 slaughterhouses scattered over the country, together with gut-dressing units.

Other expenditure of various kinds is predicted, notable in the fields of the processing and marketing of milk, the opening of veterinary centres, centres of agronomic research etc...

To recapitulate, overall investments in the primary sector (excluding mines) can be broken down in the terms of the following table:

DISTRIBUTION OF AGRICULTURAL INVESTMENT IN MILLIONS OF DA

	Studies	Buildings	Maintenance	Seedlings	Equipment	Stocks	Misc.	Total
Irrigation	500	—	850	—	200	—	—	**1.550**
Afforestation	—	—	410	10	—	—	—	**420**
Livestock	—	232	40	52	13	25	88	**450**
Plantations	—	—	—	644	—	—	—	**644**
Mechanisation	—	—	—	—	780	—	—	**780**
Cold Storage	2	239	—	—	24	—	—	**265**
D.E.R.P.E.	—	—	262	—	—	—	—	**262**
Fisheries	—	30	—	—	93	—	—	**123**
Traditional Sector	—	16	16	—	—	—	—	**32**
Government Agencies	13	8	—	—	3	—	—	**24**
Studies	35	5	—	—	—	—	—	**40**
TOTAL	**550**	**530**	**1.578**	**706**	**1.113**	**25**	**88**	**4.590**

This overall investment will bring about an increase in the added value of approximately 0,3 billion DA, giving a rate of increase of 3% in the primary sector, excluding mines.

This anticipated expansion is the outcome of the figures given below:

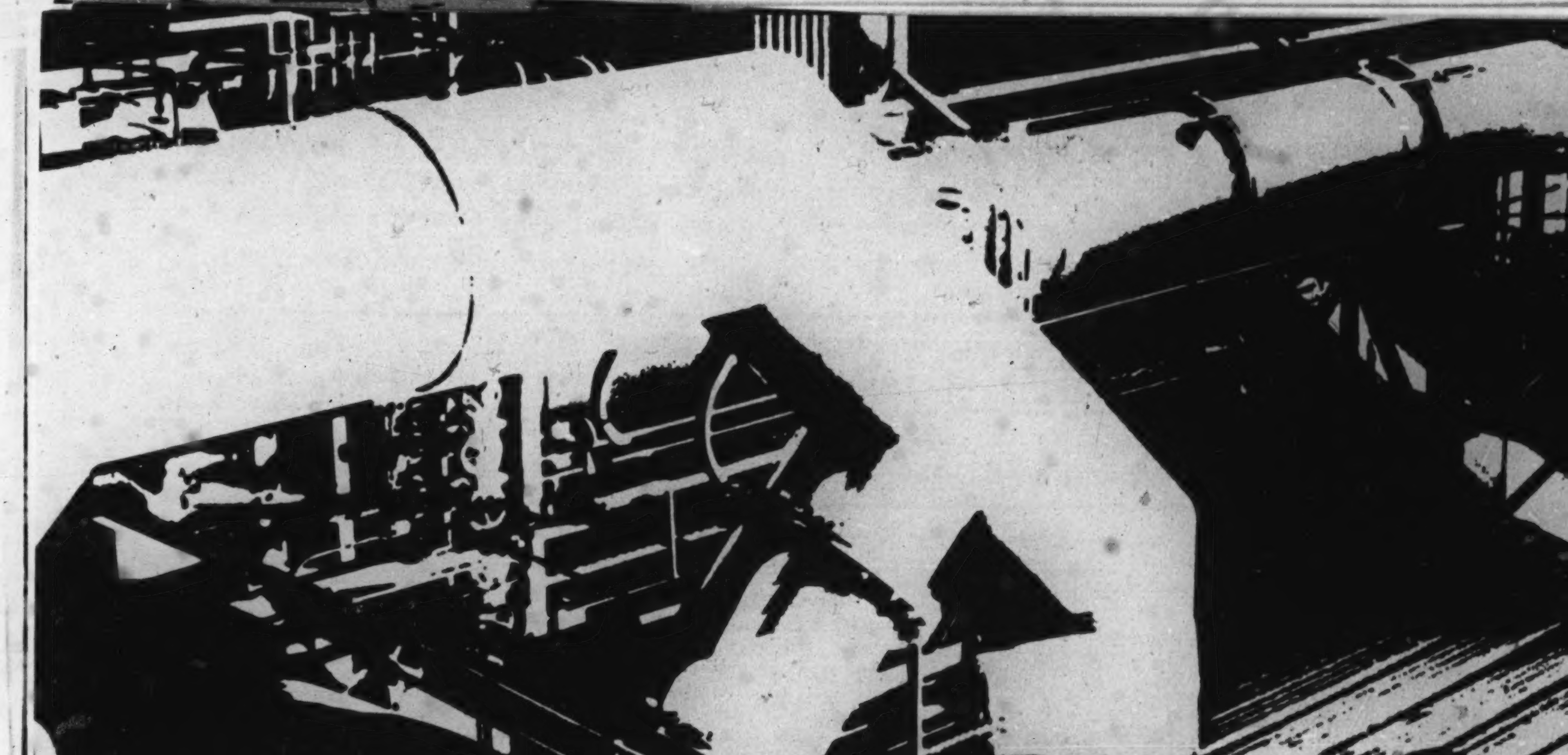
PRIMARY SECTOR (excluding mines): ADDED VALUE
(in billions of DA)

1969	1973	Annual rate of growth
2,4	2,7	3%

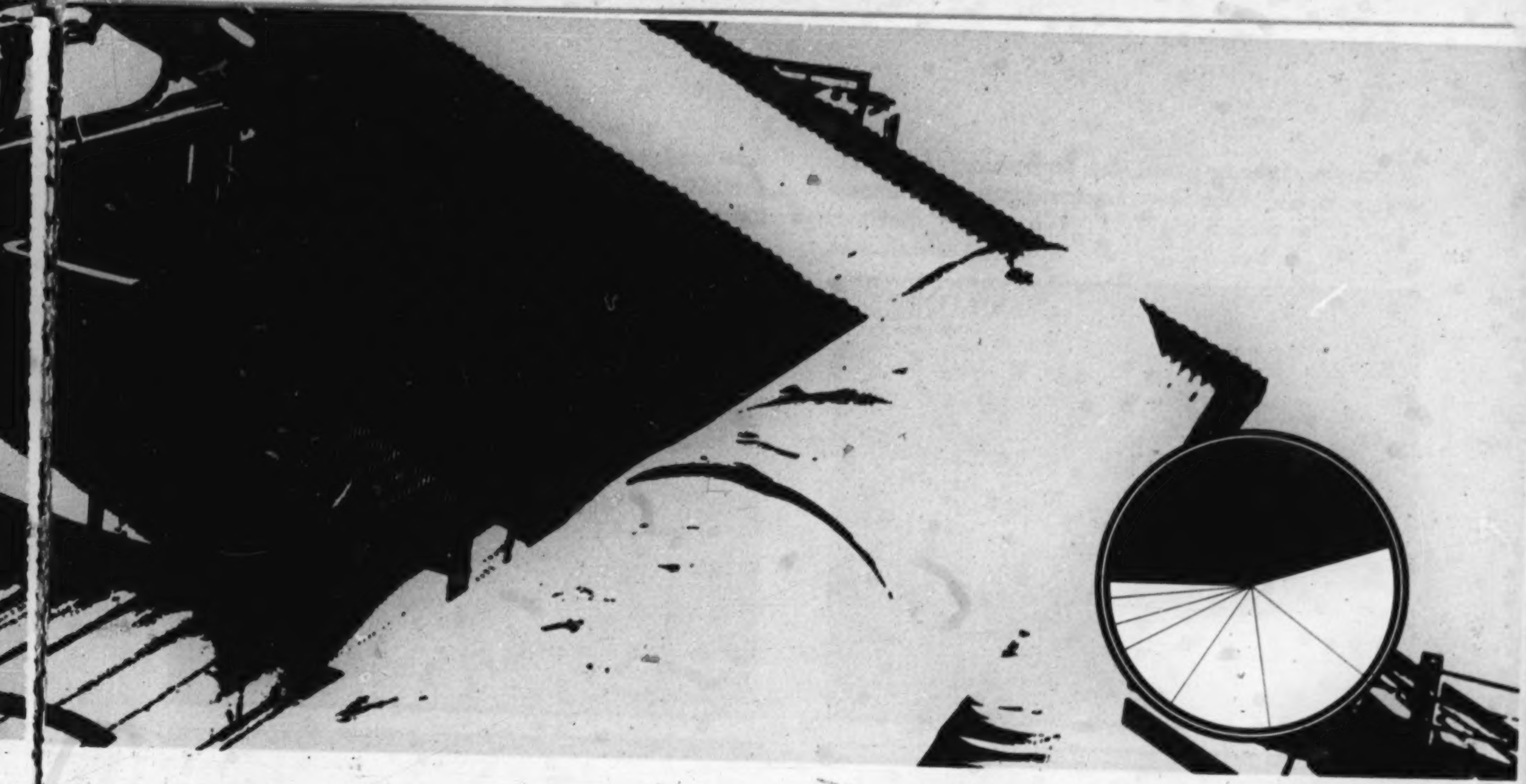
The principal varieties of produce in the sector will be increased as shown in the following table:

ANTICIPATED DEVELOPMENT OF MAIN VARIETIES OF PRODUCE DURING PERIOD OF PLAN

	Unit of measurement	Mean Annual Production	Average Production	Growth	
				Quantity	%
Cereals	10^6 quintaux	18,3	24,3	**6**	**32**
Market Gardening	10^3 tons	600,0	480,0	**400**	**66**
Citrus Fruits	»	400,0	1000,0	**80**	**15**
Olives	»	150,0	180,0	**30**	**20**
Dates	»	120,0	140,0	**20**	**15**
Almonds	»	4,7	6,7	**2**	**42**
Other Fruits	»	63,0	103,0	**40**	**66**
Wine	10^6 hectolitres	8,5	8,0	**0,5**	**6**
Grapes (eating)	10^3 tons	34,0	42,5	**8,5**	**25**
Meat	»	148,0	200,0	**52,0**	**35**
mutton	»	(55)	(65)	**(10)**	**18**
beef	»	(29)	(39)	**(10)**	**33**
poultry	»	(24)	(36)	**(12)**	**50**
fish	»	(25)	(45)	**(20)**	**80**
Milk	10^6 litres	480,0	650,0	**170,0**	**35**
Eggs	10^6 units	210,0	360,0	**150,0**	**70**
Honey	10^3 tons	1,5	4,5	**3,0**	**200**
Cotton (fibre)	»	0,8	3,4	**2,6**	**325**
Sugar beet	»	60,0	200,0	**140,0**	**233**
Sunflower seeds	»	0,2	30,7	**30,5**	**1.525**
Industrial tomato	»	34,0	90,0	**56,0**	**170**



El-Hadjar



Industry

An idea of the prodigious development of the secondary sector, i.e.; of industrialization, can only be gained from an examination of the principal branches of industry.

Hydrocarbons

This sector is of vital importance to Algeria's economic development, particularly from the financial point of view. The reasons for this are twofold:

- *It provides large-scale revenues for the State;*
- *It enables Algeria to procure the foreign currency needed to finance the imports required for industrialization.*

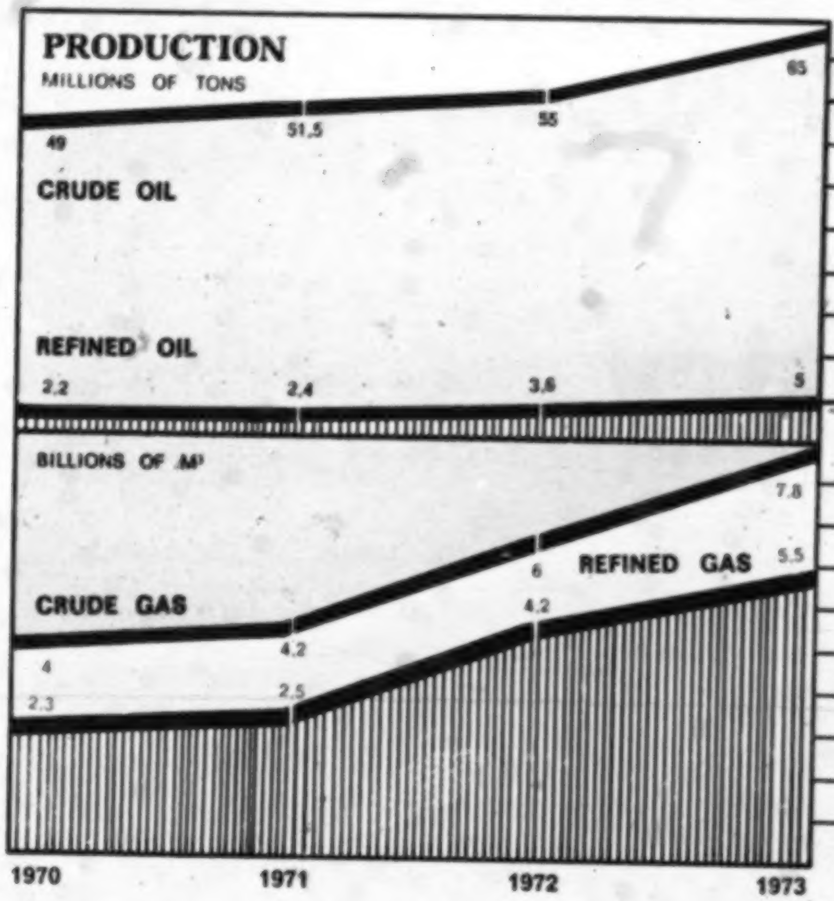
It is also important from another point of view, in that it provides the other sectors of the national economy with the abundant, cheap energy that they need.

It can therefore be seen why ambitious production targets should have been assigned to this sector:

ANTICIPATED OUTPUT OF VARIOUS PETROLEUM PRODUCTS

(oil in millions of tons, gas in billions of cubic metres)

	1970	1971	1972	1973
Crude oil	49	51,5	55	65
Refined oil	2,2	2,4	3,6	5
Crude gas	4	4,2	6	7,8
Refined gas	2,3	2,5	4,2	5,5

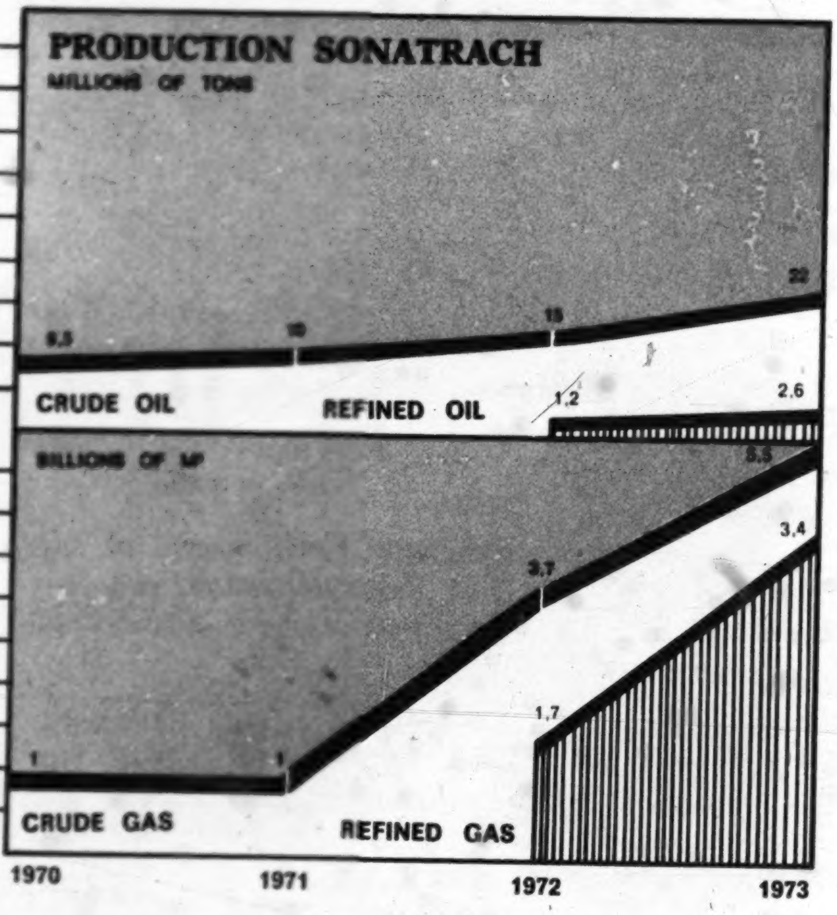


All these products (apart from crude oil whose production is to increase by 32% during the period of the plan) are to seen their production doubled. The part played by the State in this production, which will be relatively slight in the first year of the plan, should increase in importance by the end of the period as is shown in the following table:

PRODUCTION TARGETS IN THE PUBLIC SECTOR (SONATRACH)

(oil in millions of tons, gas in billions of cubic metres)

	1970	1971	1972	1973
Crude oil	9,5	10	15	22
Refined oil	—	—	1,2	2,6
Crude gas	1	1	3,7	5,5
Refined gas	—	—	1,7	3,4

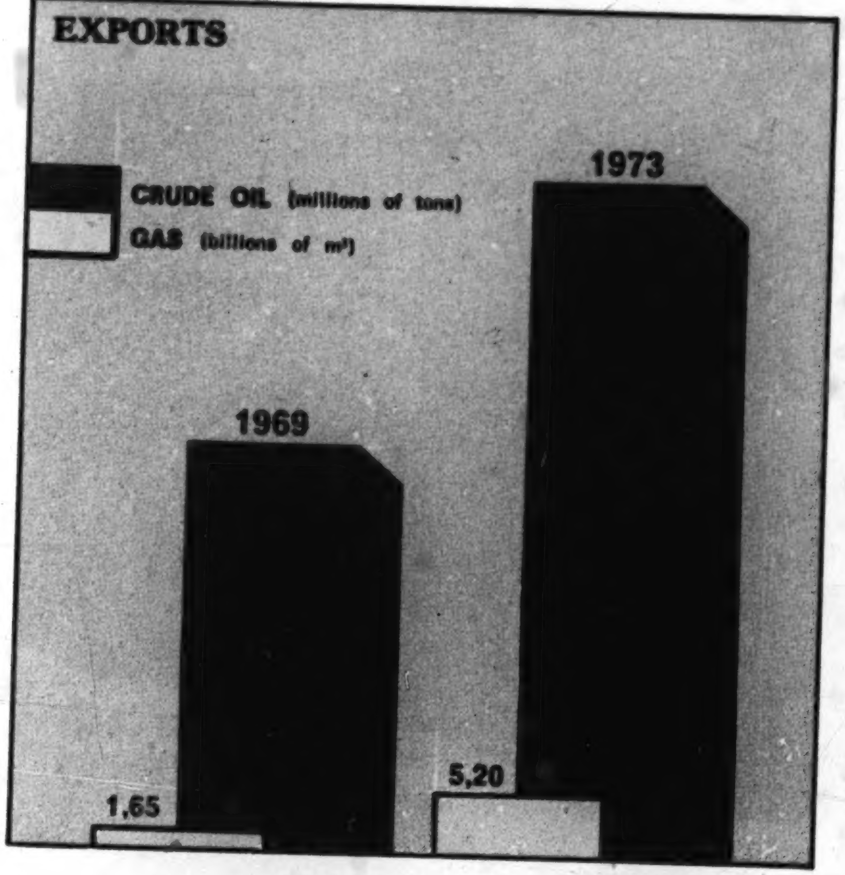


The increasing importance of State activity in this sector will give the State more ready control over an increasing percentage of oil revenues, used both to finance the Four-Year Plan and to develop our natural resources by setting up refineries and petrochemical plants.

This sector must reinforce its position on the international market to enable the other branches of the national economy to make needed investments in foreign currency. A tremendous development of exports in this sector is consequently scheduled under the terms of the Plan:

DEVELOPMENT OF EXPORTS OF TWO IMPORTANT OIL PRODUCTS
(oil in millions of tons, gas in billions of cubic metres)

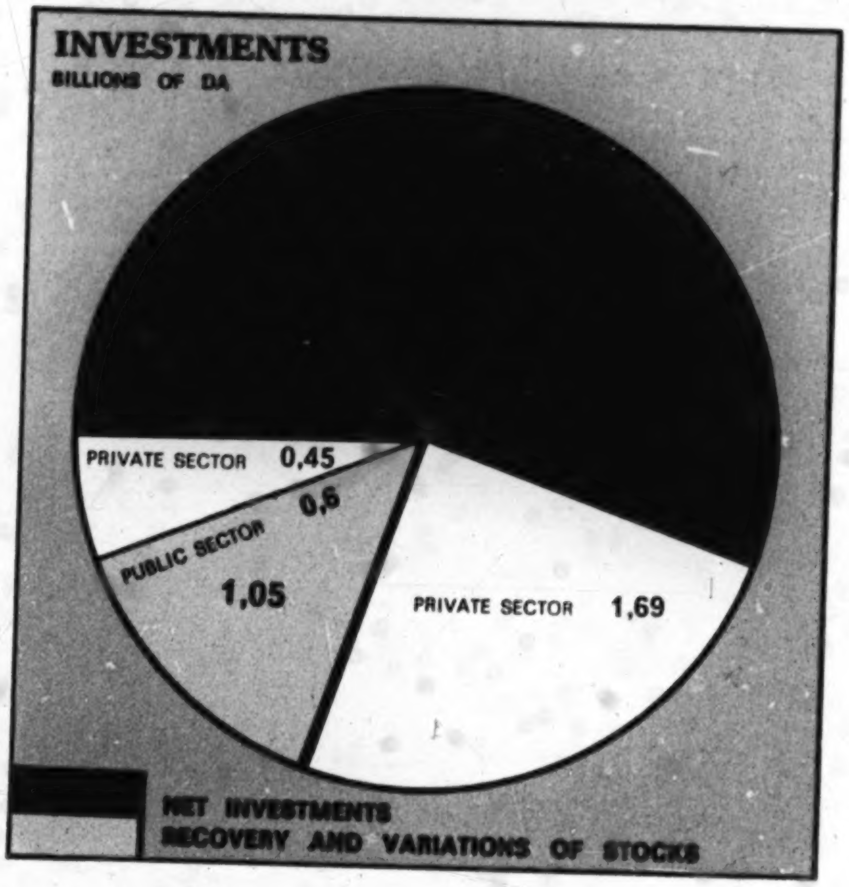
	1967	1973
Crude oil	36 35	60
Crude gas	1,65	5,20



To meet production and foreign sales targets, the sector will be investing a total of 7,31 billion DA between 1969 and 1973. This investment is to be distributed as follows:

TOTAL INVESTMENT IN HYDROCARBONS
(1970-73 in billions of DA)

	Public Sector	Private Sector	Total
Net investment	4,57	1,69	**6,26**
Recovery and variations of stocks	0,6	0,45	**1,05**
TOTAL	**5,17**	**2,14**	**7,31**



This increase in production should bring about a 40% increase in the number of jobs in this sector between 1969 and 1973.

JOBS IN THE HYDROCARBONS SECTOR				
1969	**1970**	**1971**	**1972**	**1973**
10.000	10.800	11.900	12.500	14.000

It will be seen that the number of new jobs is insignificant as compared to the investments scheduled. This is due to the technological characteristics of the sector, which uses a great deal of capital and relatively little labour.

The continuous development of the hydrocarbons sector is helped by the importance of the country's known oil and gas reserves. To give an example, recuperable gas reserves are as follows:

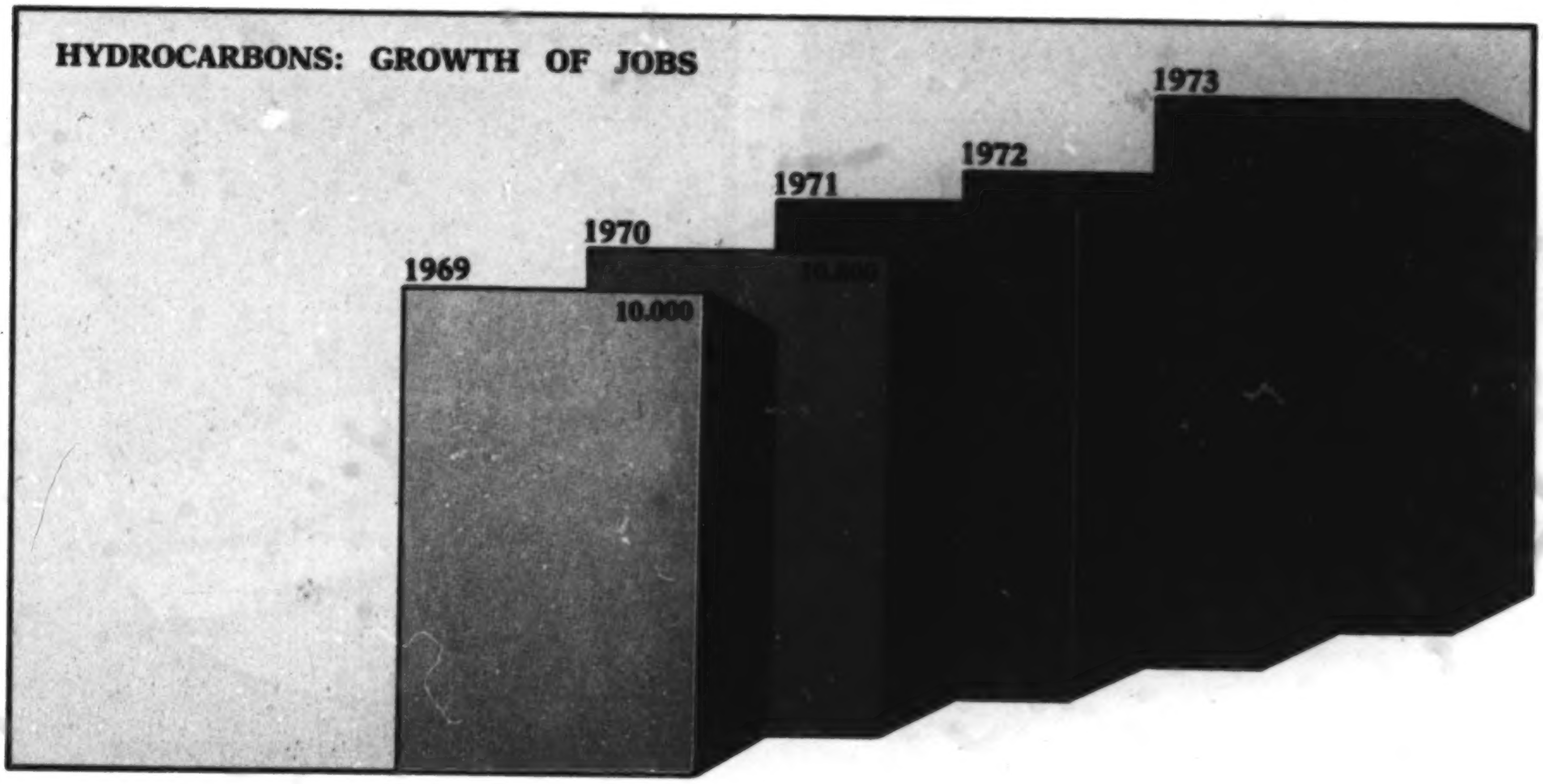
NATURAL GAS: RECUPERABLE RESERVES
(in billions of cubic metres)

	Proved Reserves	Possible Gain
Hassi R'Mel	1430	190
Rhourde Nouss	260	210
Alrar	120	80
Tiguentourine	60	—
Gassi Touil	60	—

N.B. These figures only concern fields with reserves of over 50 million cubic metres.

The exploitation of these important natural riches should make possible:

- *The transformation of crude oil and gas in Algeria, thus creating jobs, increasing the country's revenues*



and enabling her to cease to be a mere supplier of raw materials;

- *The increased use of these raw of transformed materials by Algerian consumers of end products.*

Steel

Steel occupies a vital place in Algeria's development policies, as it supplies other subsidiary sectors with the intermediary products needed for the country to produce the equipment to increase its long-term production capacity. One of the effects of this policy will be to decrease Algeria's dependence on foreign countries as regards its essential equipment. In addition, it tends to be productive of additional investments in the sectors it supplies (construction, mechanical engineering, hydrocarbons etc.), where steel consumption is high. Steel is therefore a necessary basis of any integrated industrial complex.

At the present time, there are a few units of steel production in Algeria, whose products and production capacities are given below:

Plant	Products	Production capacity
Reghaia	Small tubes	27.000 tons
Oran	Reinforcement for concrete	1.000 »
Algiers	Boxes, barrels etc.	400.000 »
El Hadjar	Ingots, tubes	100.000 »

The setting up of the steel works and rolling mill at El Hadjar has been subjected to delay. This plant was initially conceived to satisfy Algeria's needs for steel section, bars, sheet steel, metallic ribbon etc. More recent studies have shown that there is a considerable market in Algeria for products of this type, and that the El Hadjar complex should be extended to enable these demands to be met. Moreover, this complex not only appears to be on too small a scale in the Algerian context, but is on too large a scale as regards its financial cost. The predicted investment for each ton of steel would be twice as high in Algeria as it is elsewhere and it therefore seems economically and financially necessary to expand the production capacity of the complex (oven, second blasting furnace, additional steel plant etc.). Investments in this extension will, however, not become productive until after 1973, as they take a long time to mature.

The estimated consumption of steel products during the four-year period is as follows:

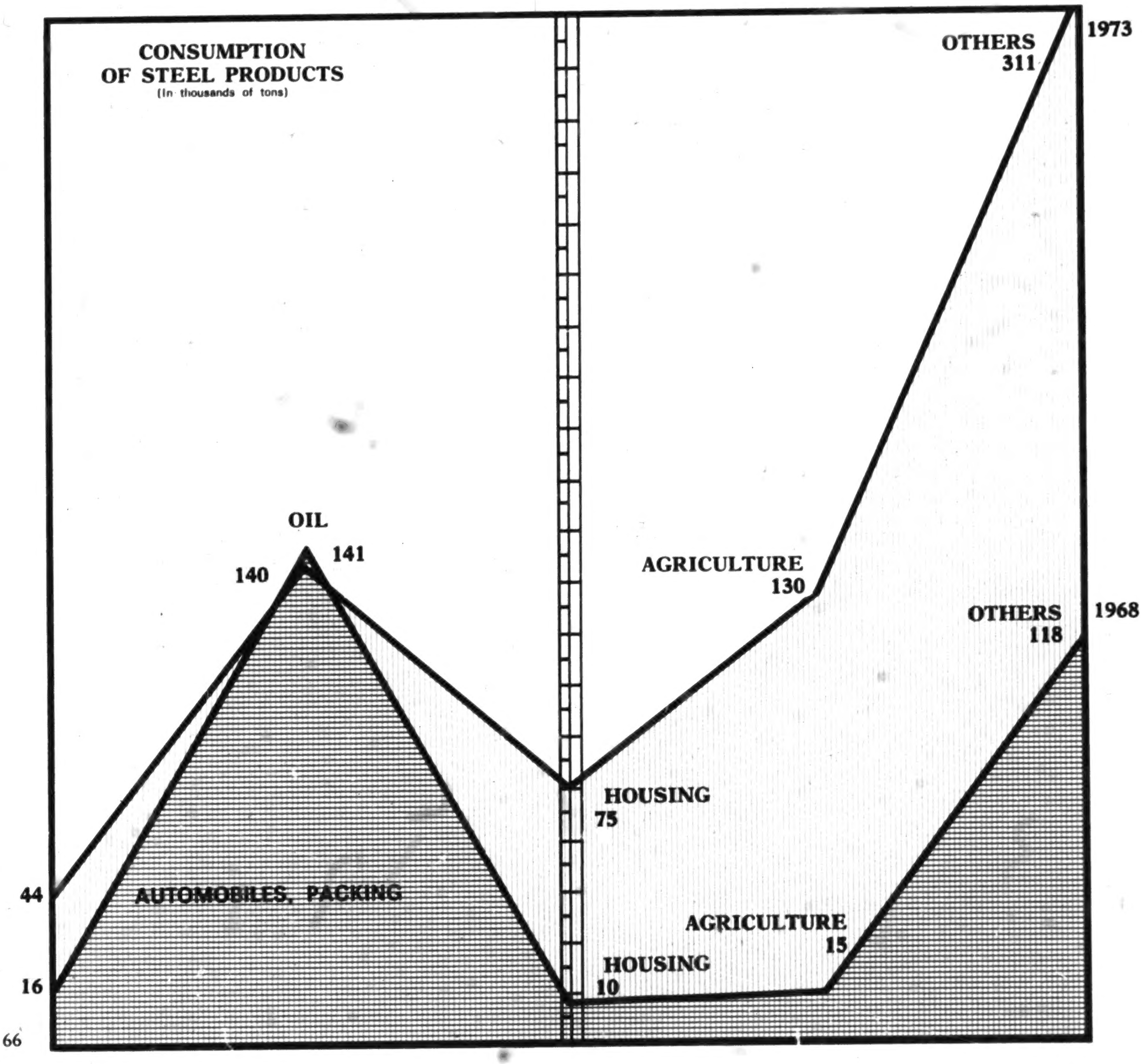
GROWTH IN CONSUMPTION OF STEEL PRODUCTS
(in thousands of tons)

	1968	1973
Automobiles, packing	16	44
Oil	141	140
Housing	10	75
Agriculture	15	130
Other	118	311
TOTAL	**300**	**700**

When one studies the probable development of foreign trade in steel products, it can be seen that the increase in consumption shown in the above table is accompanied by a parallel rise in imports. This implies that these imports are a response to local demands for steel products.

There is nothing paradoxical about this phenomenon. It derives from two important factors:

- *A technical factor. Investments in the steel sector take a very long time to mature. This is why, for example, the plants producing bottles for gas and metal packaging, which were begun during the pe-*



CONSUMPTION OF STEEL PRODUCTS
(In thousands of tons)

riod of the Three-Year Plan, will not be finished until the Four-Year period (i.e. 1970-73). Production will consequently not be able to meet local requirements until after the period of the Plan.

- *An economic factor. Industrialization implies needs for steel products of all sorts, which existing plants within Algeria will not be able to satisfy.*

It can therefore be seen why imports of steel products will increase (apart from tubes and other products which the El Hadjar plant is to produce for both the home market and for export).

In the field of non-ferrous metals, the most important project is that concerning the zinc plant at Ghazaouet which is to be brought into production in 1972. Until the present-time, Algeria was content to manufacture and export concentrated zinc. The Plan makes provision for the building (near a known zinc deposit), of a washing plant at El Abed which will provide the Ghazaouet electrolysis plant with important amounts of zinc concentrate. The annual capacity of the Ghazaouet plant should be 40.000 tons (a figure that can be increased, by progressive extensions, to give double this capacity). The marketing of this production (30.000 tons in 1972 and 40.000 tons after this date) will firstly be oriented towards the traditional markets of the U.S.A. and Western Europe but, at a later date, the Algerian zinc market will be promoted by developing uses in industry (cars, cycles, gutters etc...).

Electrical and mechanical engineering

Algeria had no electrical or mechanical industries during the colonial period. The firms then operating in this sector were concerned with:

- *Maintaining or reparing previously imported equipment;*
- *Providing other sectors with day-to-day necessities (scaffolding, door and window frames etc.).*

It may be said that, at the present time, the mechanical engineering industry is almost non-existant, while the electric industry is limited to the manufacture of rudimentary articles (electric wires and cables, small-scale transformers etc...) and to the assembly of more elaborate articles (alternators, motors etc...)

The electro-mechanical industry, which transforms metals and manufactures durable consumer goods and machines, is characterized:

- *By its effect upon other sectors, both those supplying it (steel, metallurgy) and those it supplies (agriculture and other industries);*
- *By the complexity and rapid evolution of its production techniques;*
- *By the considerable volume of jobs which it directly creates.*

These characteristics amply justify the promotion, in Algeria, of a sector which utilises certain steel and metallurgical products, particularly as it is a hazardous business to export such products in an uncertain and fluctuating world market.

Such a policy also allows:

- *The manufacture on the spot of durable consumer goods and those needed for current equipment, thus economising the reserves of foreign currency which can then be turned to other uses, and making Algeria independent of the outside world, particularly as regards agricultural machinery (tractors, sluices, pumps etc...)*
- *The integration of the various branches of the national economy, i.e. the setting up of a network of links between them which would serve to make a maximum use of the multiplying factor of investment.*

Until the present time, investment in Algeria, as in any underdeveloped country, has always meant buying foreign equipment and spending money in foreign countries, with the effect of increasing the national income and the number of jobs in the foreign countries concerned. The diversification and integration of the Algerian economic structure should make the multiplying factors of investment and increased employment operative within Algeria itself.

All these analyses have led to the establishment of a production target for the sector that represents an increase of 131% from 1969 to 1973. The mean annual rate of increase in production is about 24% and this high figure can be explained by the setting up of new factories. An increase in the number of new jobs should follow the increase in production, as is shown in the following table:

	ADDED VALUE (in thousands of DA)			JOBS		
Sub-sector	**1969**	**1973**	**Rate of growth**	**1969**	**1973**	**Rate of growth**
Construction Metallurgical	120.000	245.000	19,4%	6.800	12.500	16,42%
Mechanical	66.000	190.000	30,3%	3.000	10.000	36,80%
Electrical	19.600	85.000	25,7%	2.400	7.500	32,90%
TOTAL	**205.600**	**520.000**		**12.200**	**30.500**	

The public sector is scheduled to undergo a particularly rapid expansion as regards the creation of new jobs:

THE EVOLUTION OF PRODUCTION (in thousands of DA) AND OF THE NUMBER OF JOBS IN THE PUBLIC AND PRIVATE SECTORS

	Added Value		Jobs	
	1969	**1973**	**1969**	**1973**
Public sector	123.500	456.000	7.200	22.500
Private sector	96.500	64.000	5.000	8.000

This development of the public sector is due:

- *To the enormous cost of investments in a field where technology is highly sophisticated;*
- *The importance of the electro-mechanical industry for both the integration of the national economy and its growth at a later date.*

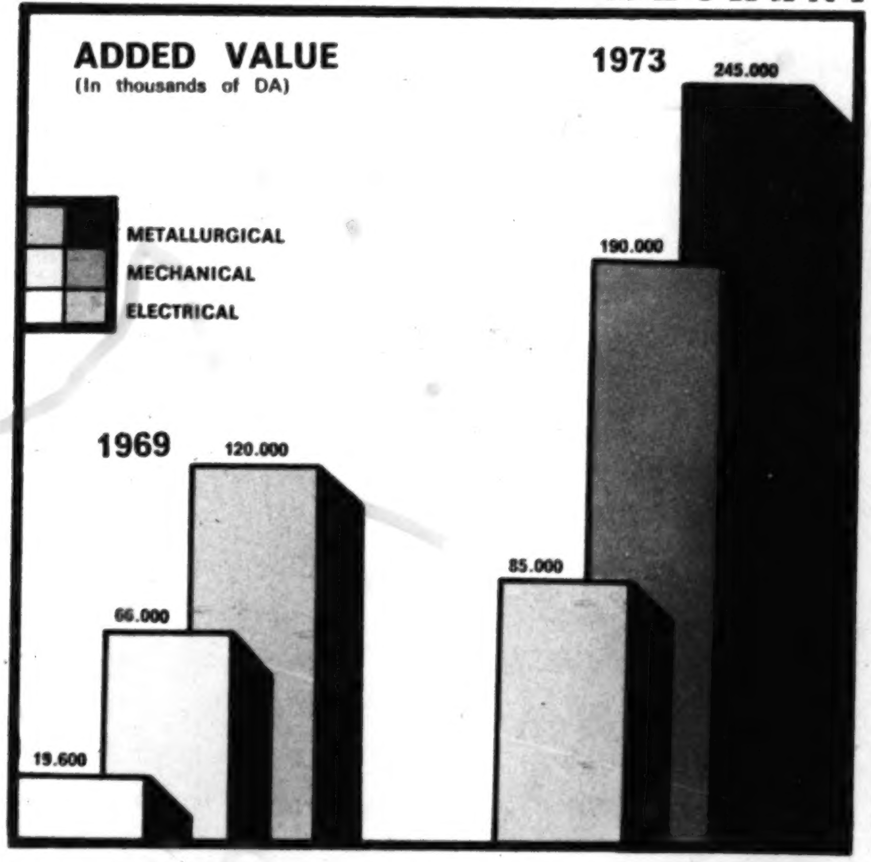
To implement a programme of this magnitude, the Government plans to invest about 1.459.160 DA to be distributed as follows:

DISTRIBUTION OF INVESTMENTS IN THE ELECTRO-MECHANICAL SECTOR
(in DA)

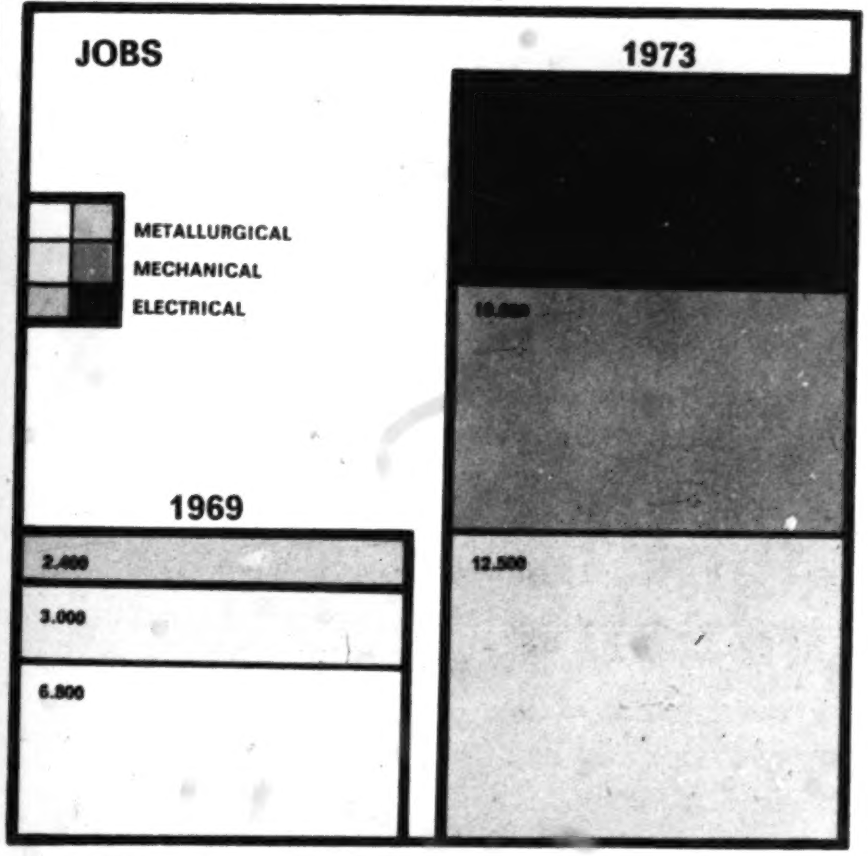
	Public Sector	**Private Sector**	**Total**
Net investments	1.275.150	70.000	**1.345.150**
Recovery and increase of stocks	94.000	20.000	**114.000**
Gross investment	**1.369.150**	**90.000**	**1.459.150**

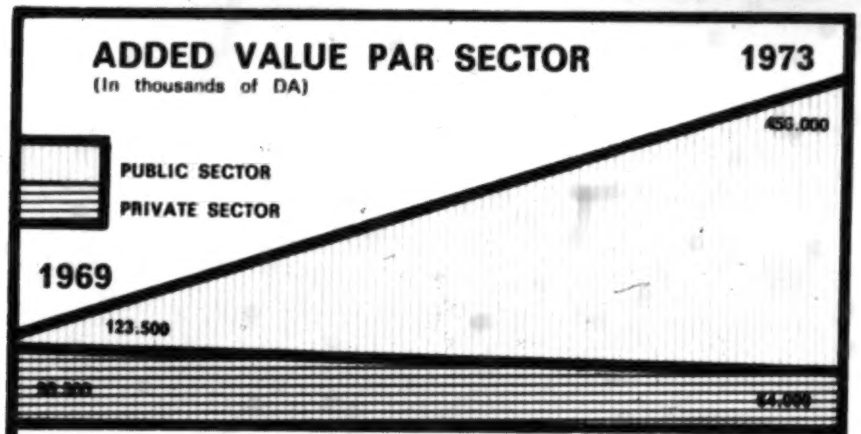
The implementation of this programme conforms with the policy of improving the standard of living in the inland regions, in that factories are to be set

ELECTRO-MECHANICAL INDUSTRIES

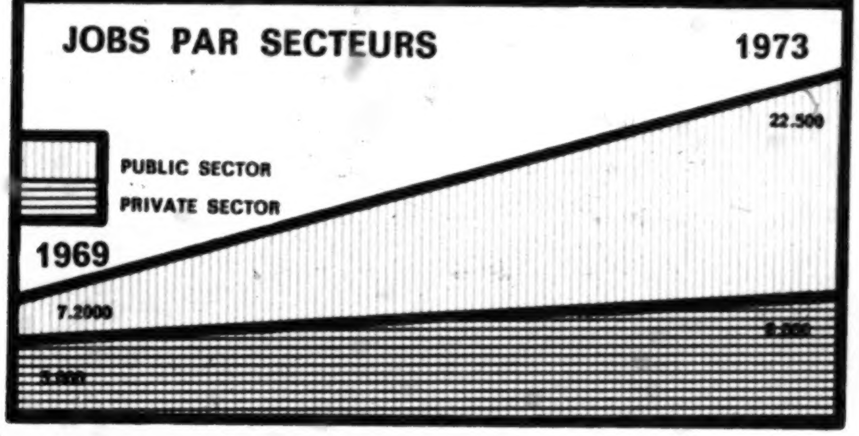

ADDED VALUE

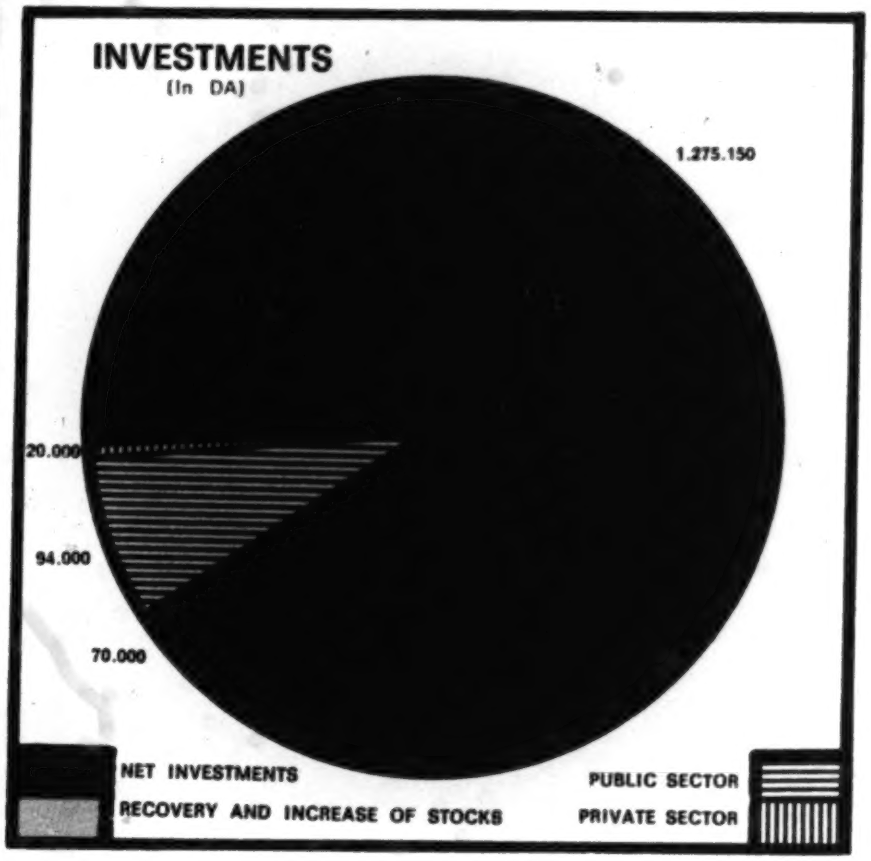
(In thousands of DA)


JOBS


ADDED VALUE PAR SECTOR

(In thousands of DA)


JOBS PAR SECTEURS


INVESTMENTS

(In DA)

up near the inland population centres, thus breaking with the traditions of the colonial economy where growth and income were concentrated in certain parts of the country, near the major ports.

This is why electro-mechanical plants arte to be implanted in all parts of Algeria (sluices and pumps at Medea, agricultural equipment at Sidi Bel Abbes, motors at Constantine, household appliances at Tizi Ouzou etc...).

Light industry

As opposed to heavy industry, light industry does not require much capital and creates relatively more jobs. To illustrate the development of light industry during the period 1970-73, one can take the examples of textiles and the food industry.

Textiles

The rate of growth in this branch will be 15,5% between 1969 and 1973, and the number of jobs should increase by 10,1% per annum. In absolute terms, production and the number of jobs should develop as follows:

TEXTILES: DEVELOPMENT OF THE ADDED VALUE (in thousands of DA) AND OF JOBS

Sector	Added Value		Jobs	
	1969	1973	1969	1973
Public	104.005	186.349	8.176	14.000
Private	231.495	413.651	12.224	16.222
TOTAL	**335.500**	**600.000**	**20.400**	**30.222**

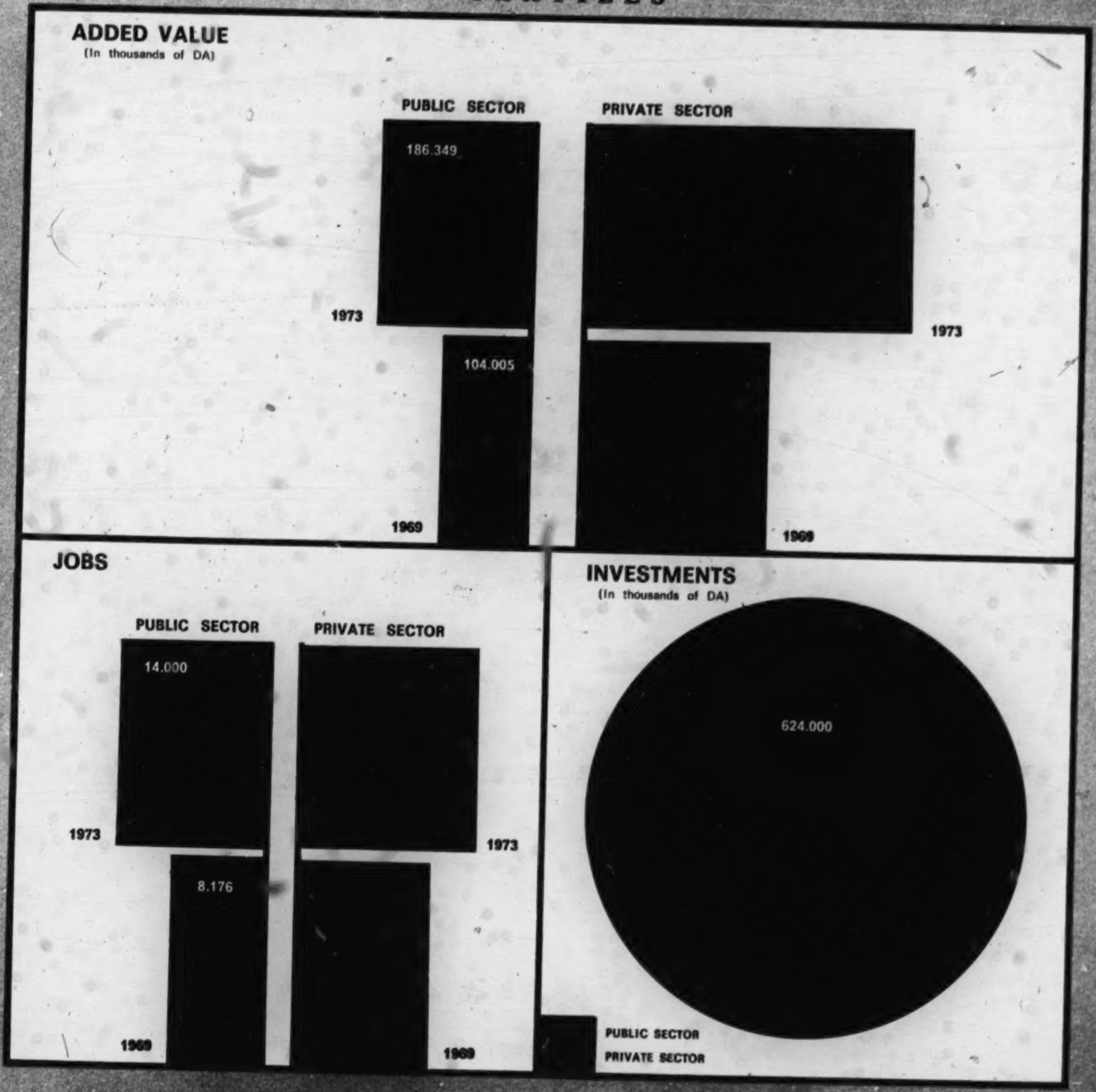
The low investments required in light industry have led to the private sector assuming an important role, which is tending to increase in importance, with regard to both production and employment.

General objectives in this sector are as follows:

- *To take part in the process of integrating the various sectors of the national economy, with agriculture and the chemical industry on the one hand and manufacturing industry (cars, shoes etc.) on the other;*
- *To make an effort to rationalize production by improving quality, enlarging the range of manufactured articles and bringing down production costs. The lowering of costs to increase the home market appears all the more necessary once it is realized that exports are limited by the appearance of similar industries in other underdeveloped economies, and by the protectionism of the industrialised nations;*
- *To meet the country's needs. An increased per capita consumption is predicted for most kinds of textiles, once the retail price has come down.*

The development of this sector leads to modifications in the structure of its foreign exchanges. Certain articles, for example, are no longer imported but are exported (e.g. cotton fabrics, industrial covers etc...) whereas imports of other articles have gone up (artificial and synthetic fabrics etc...). The sector is, in fact, expected to show a deficit between 1970 and 1973 as regards both artificial and synthetic fibres, and this state of affairs will continue until the Tlemcen complex comes into operation. In this sector, also, investments are to be made in various parts of the country (blankets at Bordj el Kiffan, wool fabrics at Tiaret etc.).

TEXTILES


ADDED VALUE
(In thousands of DA)
PUBLIC SECTOR
PRIVATE SECTOR
186.349
1973
104.005
1969
1973
1969
JOBS
PUBLIC SECTOR
PRIVATE SECTOR
14.000
1973
8.176
1969
1973
1969
INVESTMENTS
(In thousands of DA)
624.000
PUBLIC SECTOR
PRIVATE SECTOR

Investments amounting to 824.000 DA are to be made as follows:

STRUCTURE OF INVESTMENTS
1970 - 1973
(in thousands of DA)

	Public	Private	Total
Net investments	515.000	150.000	**665.000**
Recovery and increase of stocks	109.000	50.000	**159.000**
Gross investments	**642.000**	**200.000**	**824.000**

It may, however, be that overall investments will be greater than those given in the table because of an under-evaluation of expenditure in the private sector, as certain investments fail to adhere to the rules of the Investment Code.

Food

In this sector, production and employment figures are scheduled to evolve as follows:

INCREASE IN PRODUCTION (in thousands of DA) AND JOBS

	1969	1973	Annual rate of growth
Added value	450.000	686.000	5,9%
Jobs	18.744	23.592	11,9%

The difference between the two annual rates of growth (i. e. of production and of employment) shows that there should be an increase in productivity concomitant with the increase in capitalistic activity.

The rate of growth of production in this branch seems relatively slight as compared to that in other branches. This is because there have already been investments in the food industry in the past and substitution for imports is, in consequence, very advanced. Or, to put it in other words, national production is sufficiently important and its expansion must necessarily be limited, to avoid the appearance of an over-capacity to produce and the risks of over-production.

In this sector, as opposed to the textile industry, the State plays a predominant role - deriving from its monopolies of production in several sub-sectors (tobacco, mineral water, flour etc.). This predominant role is maintained under the terms of the Four-Year Plan since, at the end of the period in question, the public sector will control respectively 73% and 72% of both the added value and of jobs, throughout the entire sector.

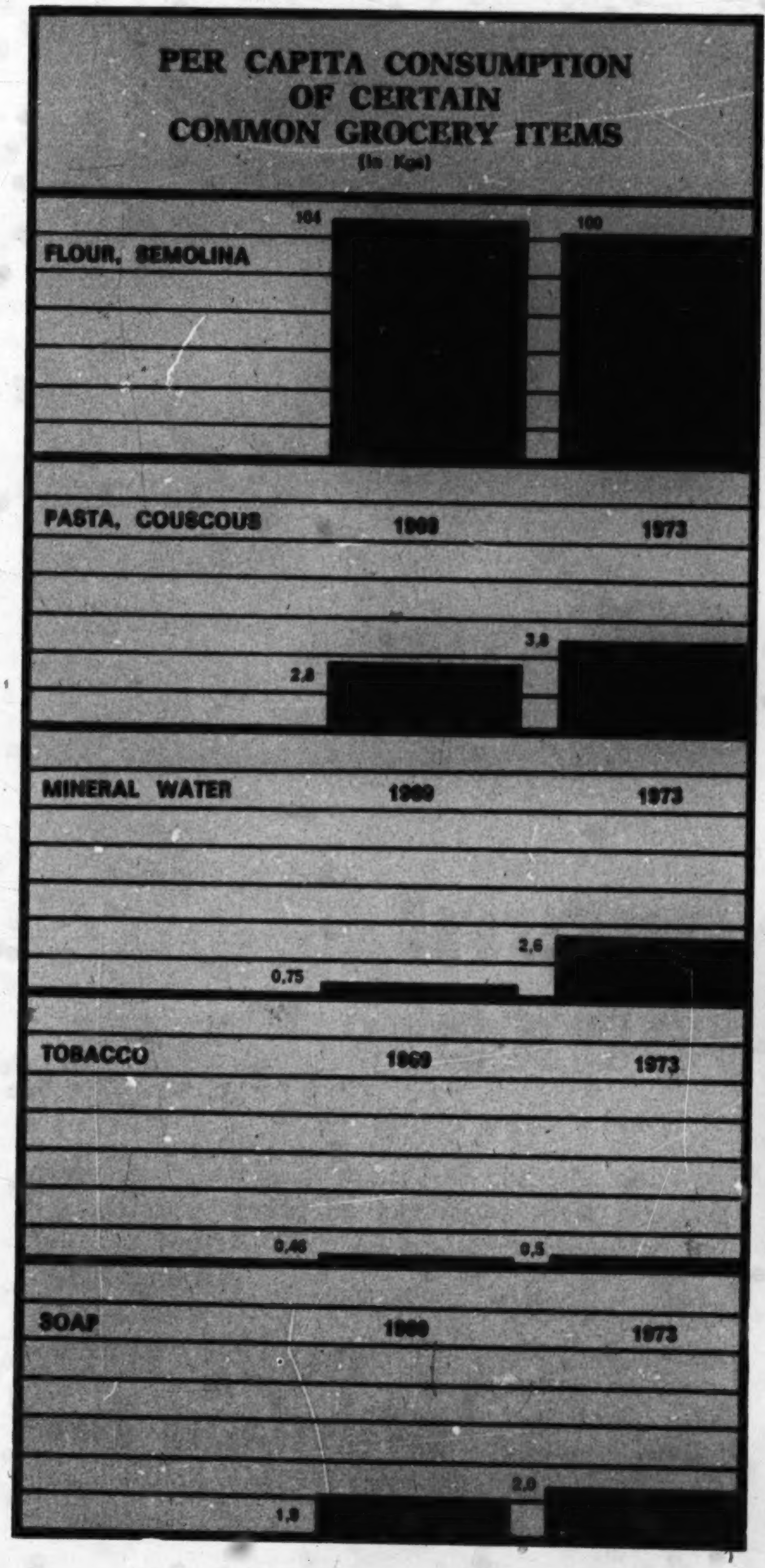
The expansion of this branch will increase the substitution of imports and change the structure of foreign trade in its products, with the result that certain goods will no longer be imported after 1973 (flour, semolina, mineral water etc...).

Generally speaking, the increased activity in this branch will at least enable it to keep up with population growth, giving an increase in the per capita consumption of foodstuffs which constitute the greater part of the average family's budget, given the low level of incomes in Algeria.

The anticipated increase in per capita consumption of certain common grocery items, given as examples, can be seen in the following table:

PER CAPITA CONSUMPTION OF CERTAIN COMMON GROCERY ITEMS
(in kilograms)

	1969	1973
Flour, semolina	104,0	100,0
Pasta, couscous	2,8	3,8
Mineral water	0,75	2,6
Tobacco	0,45	0,5
Soap	1,9	2,0


PER CAPITA CONSUMPTION OF CERTAIN COMMON GROCERY ITEMS

(In Kgs)

To enable production, employment and consumption targets to be met, total investments of 652.600.000 DA are scheduled. These can be broken down as follows:

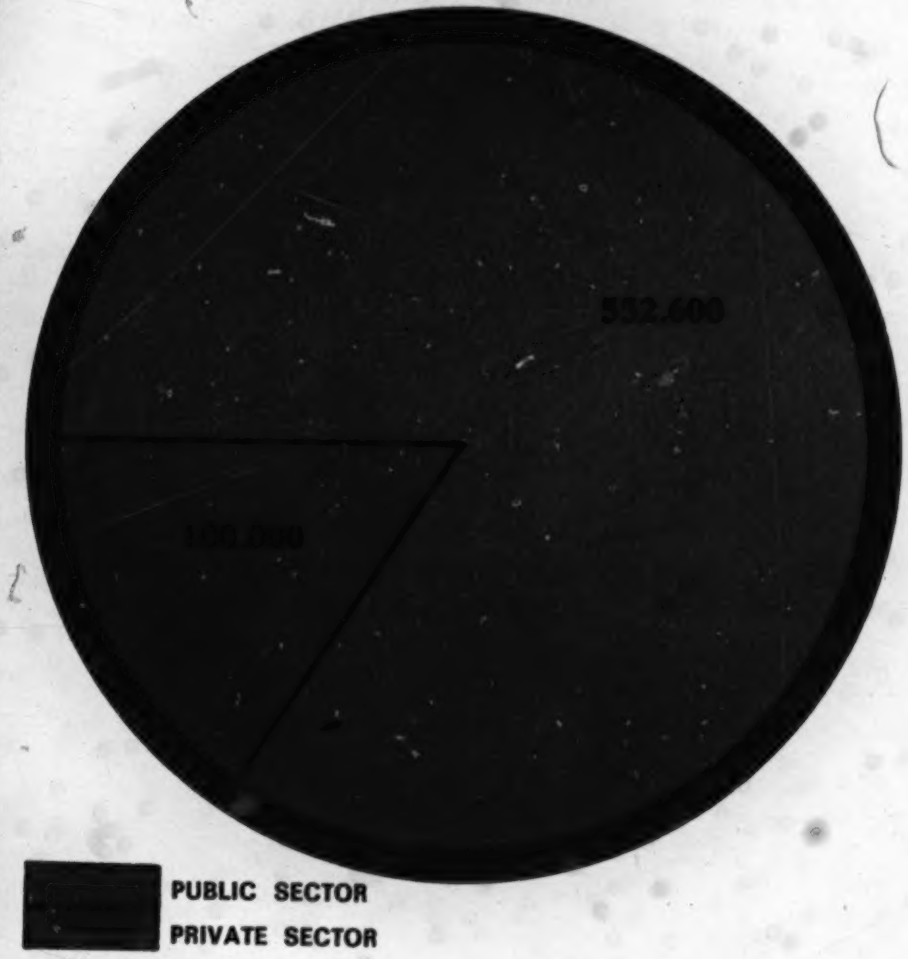
DISTRIBUTION OF INVESTMENTS

(In thousands of DA)

	Public Sector	Private Sector	Total
Net investments	470.000	60.000	**530.000**
Recovery and increase of stocks	82.600	40.000	**122.600**
Gross investments	**552.600**	**100.000**	**652.600**

CONSUMPTION: INVESTMENTS

(In thousands of DA)



Improductive expenditure

Among the investments needed to keep the economy in good order should be mentioned those effecting education, training and the country's economic and social structures.

Education and training

Predicted investments for education and training during the four-year period will involve an overall 3,305 billion DA, or 12% of the total investment budget.

Elementary, secondary and higher education will account for almost all investments in this sector. More than a million additional pupils and students are to be enrolled in our schools, colleges and universities during the period of the plan — which will involve a tremendous building and equipment programme.

In the field of professional and vocational training, relatively important structures already exist but need an improved organization to render them fully effective.

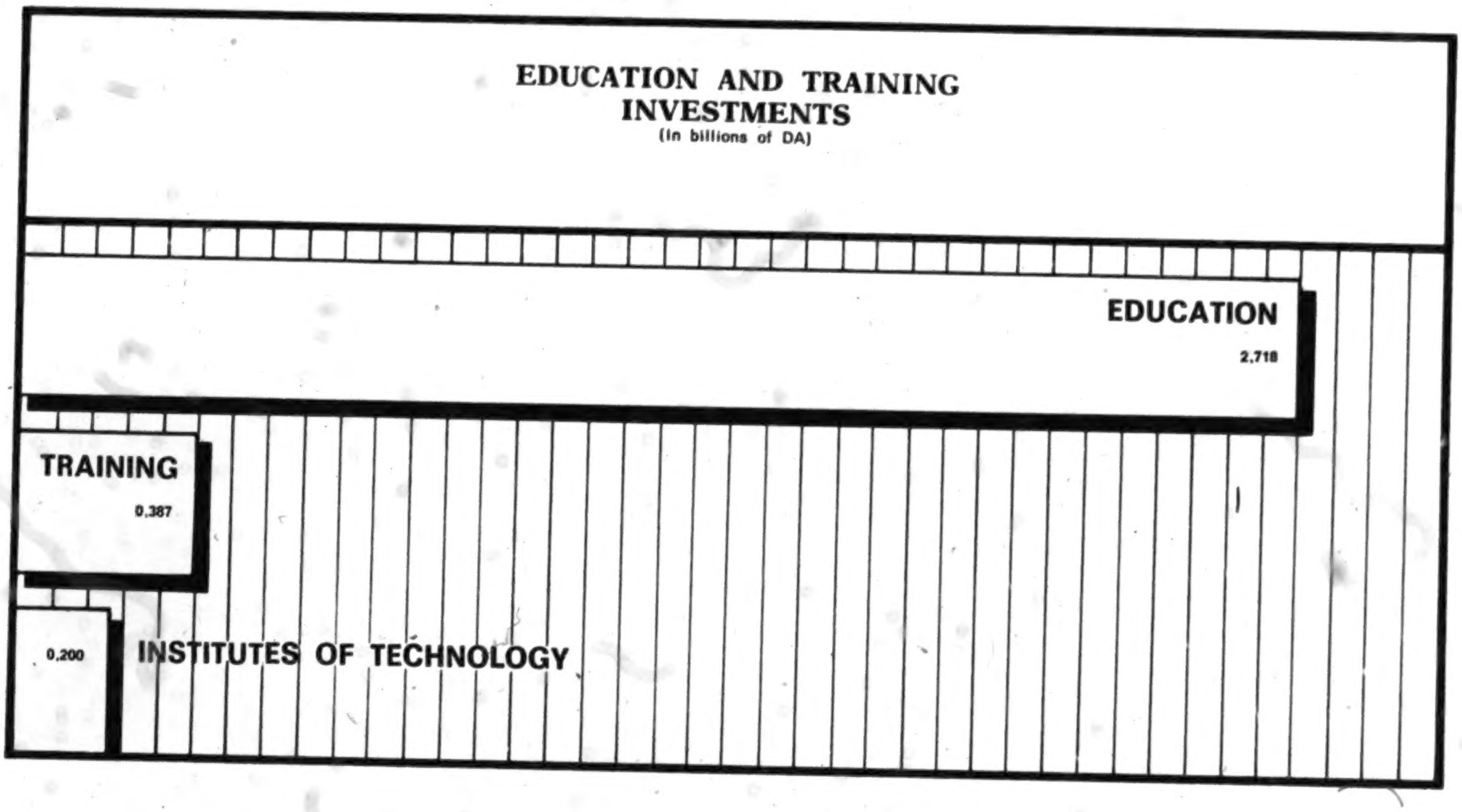
And finally, with regard to the Institutes of Technology (conceived as temporary institutions), budgetary funds have for the most part been made available to meet expenses for equipment and teaching materials.

Overall expenditure on education and training is to be distributed as follows:

INVESTMENTS IN EDUCATION AND TRAINING (in billions of DA)	
Education	2,718
Training	0,387
Institutes of Technology	0,200
TOTAL	**3,305**

Education

If one considers the different levels of education (i.e. elementary, secondary and higher education) it will be seen that the majority of the investments under this heading will go to the secondary sector which provides the economy with its middle-grade cadres (particularly elementary-school teachers). More than 125 schools with 125.000 places are to be built during the period 1970-73. An emphasis is to be laid on scientific and technical education, implying expenditure on equipment that will amount to 0,68 billion DA. Higher education will account for 0,510 billion DA, including important credits to the Universities of Oran and Constantine. The four-year period will also see the birth of the future Technological University. This policy underlies the distribution, of educational investments among the different sectors, i.e.



THE STRUCTURE OF THE INVESTMENTS IN EDUCATION
(in billions of DA)

Elementary education	0,915
Secondary education	1,245
Higher education and culture	0,510
Extra-mural education	0,048

During the period between the 1969-70 school year and that running from 1973 to 1974, all these investments will result in the following increases in the number of pupils and students:

- *Elementary education 49%;*
- *Secondary education 140%;*
- *Higher education 150%.*

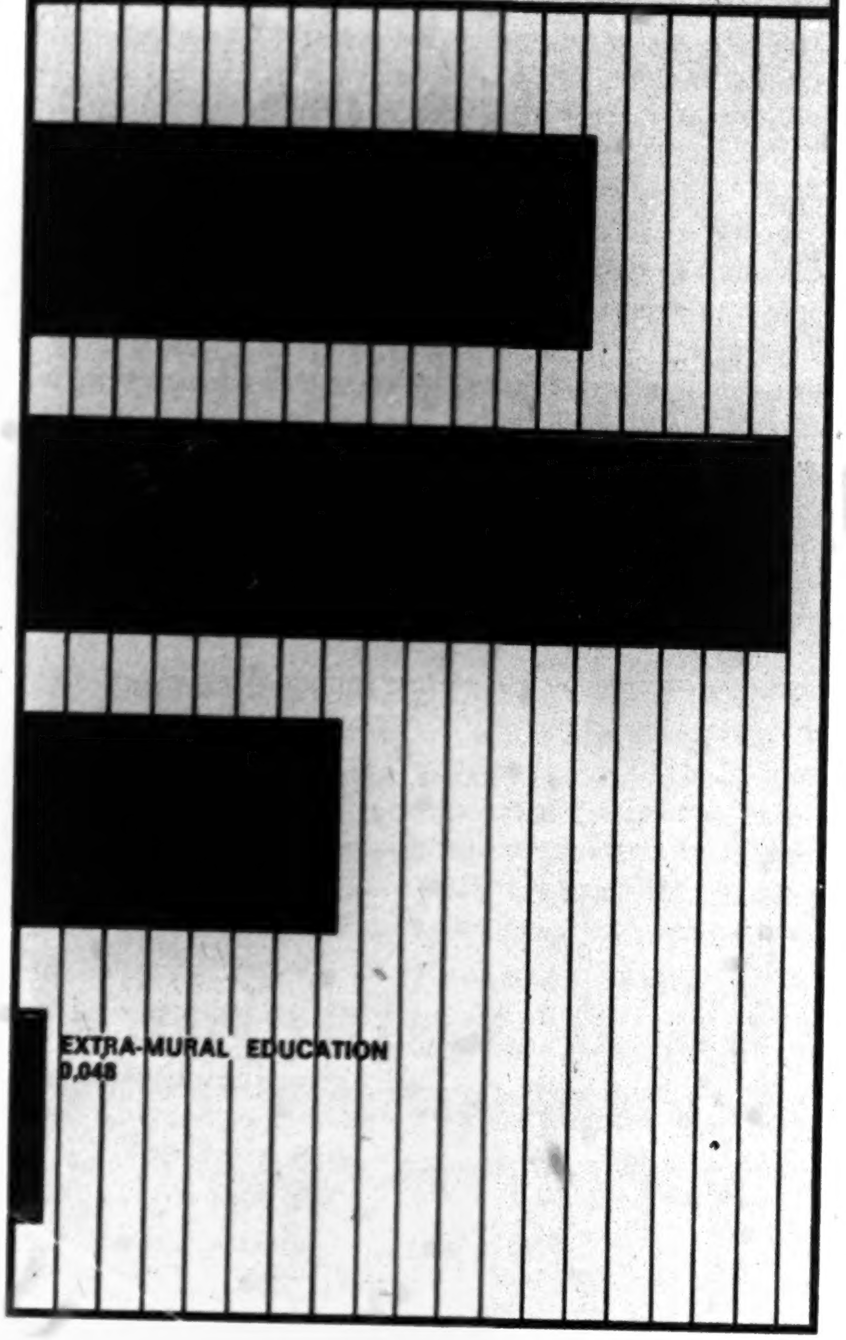
INCREASE IN NUMBERS OF PUPILS AND STUDENTS

	Elementary	Secondary		Higher
		1st cycle	2nd cycle	
1968-69	1.551.000	146.000	20.000	9.400
1969-70	1.758.000	188.000	25.000	10.800
1970-71	1.974.000	191.000	34.000	12.800
1971-72	2.190.000	247.000	41.000	17.000
1972-73	2.406.000	330.000	60.000	21.000
1973-74	2.622.000	375.000	70.000	27.000

Training

Investments in this field primarily aim to consolidate and increase the capacity of existing structures, and equip both buildings and workshops. They total 0,387 billion DA. In the sphere of vocational training for adults ("Formation Professionnelle des Adultes" or F.P.A.),

EDUCATION INVESTMENTS
(In billions of DA)



needed extensions and equipment will involve the spending of some 0,132 billion DA. Other training structures depend on the various Technical Ministries. The Ministry of Agriculture, for example, is to receive the most important share of credits, so as to set up an important programme of both training for skilled workers and refresher courses.

Industrial training policy will involve increasing the training capacity of the National Companies. Structures for the training of Government workers will also be enlarged, with the creation of centres in the major regions and of specialized Training Institutes.

Other budgetary provisions are made for various types of training, of which the most important is allocated to the Islamic Institutes.

Government policy in this sector is to make the best use of existing resources, involving the adaptation of schools, other educational establishments, training centres, Army barracks etc. About 0,2 billion DA are to be spent on this work, of which the greater part is to be allocated to the Technological Institutes and to the training of cadres for education, agriculture and industry.

All in all, about thirty Technological Institutes will be set up to train the middle-grade cadres needed for industrialization. They are designed to provide a complement to the traditional system of education which, by applying qualitative criteria to the recruitment of students, tends to place a qualitative restriction on the number of cadres that are trained.

The development of economic structures

The investments in economic structures that are incorporated into the Four-Year Plan will amount to 3,618 billion DA (or 3% of the total investment budget) and can be broken down as follows:

Communications	1,012
Transport	0,800
Irrigation etc.	0,800
Energy	0,641
Telecommunications	0,365

The communications programme

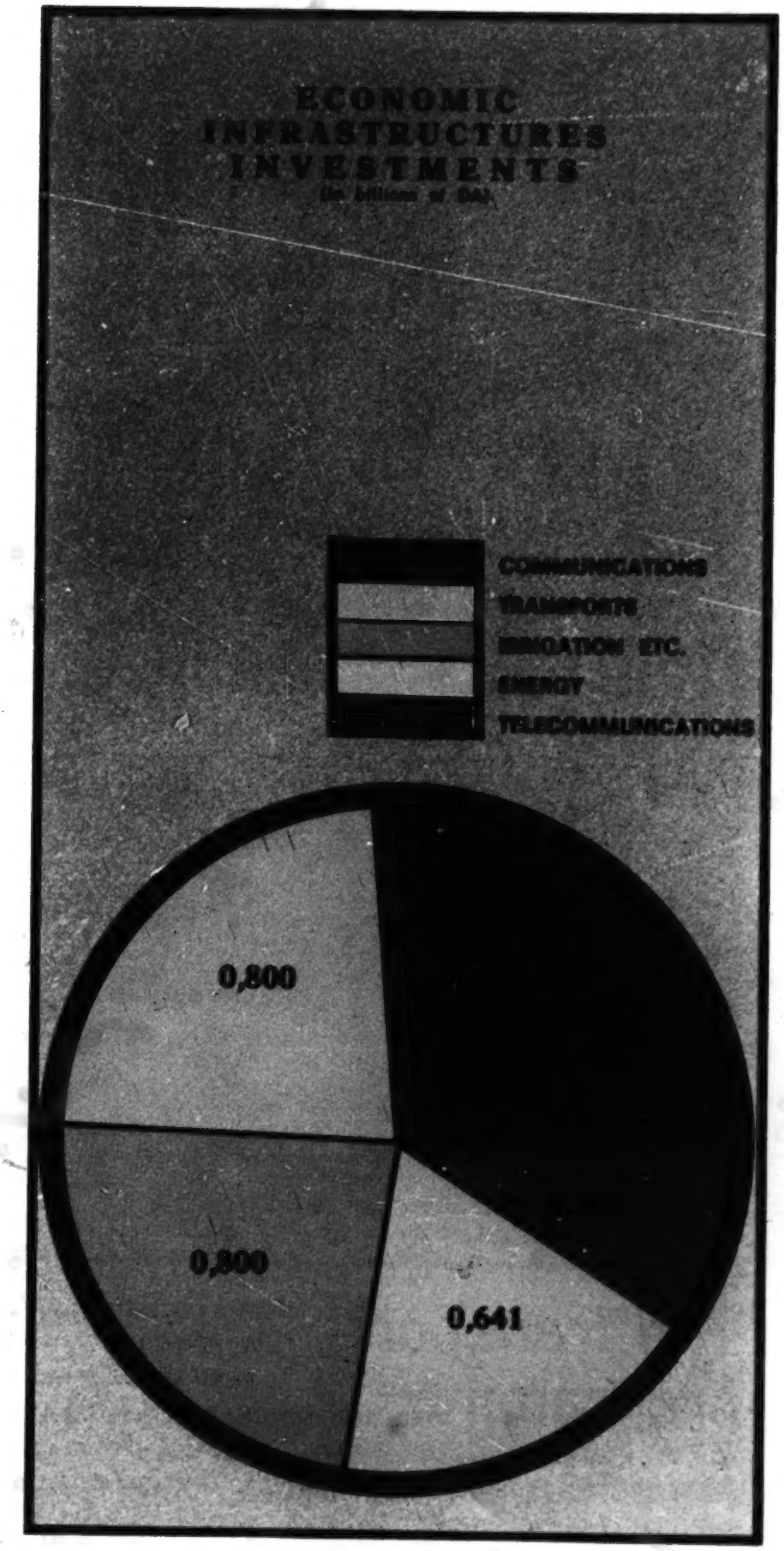
As communications structures are a necessary concomitant of economic development, the programme of investments in communications has been drawn up with a twofold aim in view, i.e.

- *The desire to link all new investments and modernization projects to the country's economic requirements, thus avoiding " bottlenecks " in communications services;*
- *The continuation of work already undertaken on the maintenance and conservation of existing structures.*

Roads

Predicted investments in this sector amount to 0,360 billion DA of which 0,085 billion are for minor roads in the Wilayas. The policy of improving certain roads to meet requirements arising from industrialization has led to the improvement of highways between Oran and Arzew, Skikda and Constantine, and Skikda and Annaba. During the four-year period, work is to start on the first stretch of the road between El Golea and Tamanrasset.

Parallel to these investments, a certain number of studies are to be undertaken to provide data for the Government's next Plan. This is because the country's present road network may well prove unsuited to our current form of economic development, in that it was conceived for a quite different kind of economy, a colonial economy geared towards exportation.



The general study envisaged will involve two distinct aspects:

- *a statistical survey in 1971 and sample surveys in 1971 and 1973 to give an evaluation of traffic and determine peak hours;*
- *a study of the nations's roads prior to a reclassification of the major (national) roads and minor roads to be maintained by the Wilayas.*

The two aspects of this study are to be followed up by the establishment of a road accident map showing the causes of accidents, enabling " black spots " to be pinpointed.

In addition, initial work will be undertaken on a projected motorway leading out of Algiers, and its extensions to the major industrial zones.

Ports

Work envisaged under the Plan will particularly aim to consolidate existing structures. Investments predicted in this sector are, however, important in that they will amount to 0.543 billion DA. This is for the most part due to the projected work on the port of Skikda, estimated to cost 0.250 billion DA. The remaining investments scheduled in the country's main ports are for renovations in the ports of Algiers, Annaba and Mostaganem.

Fishing ports are also to be allocated budgetary funds (0.038 billion DA) for improvements. In addition, 0.020 billion DA are to be spent on safety measures for shipping, i.e. the development of signals.

The port of Tipaza is finally to be developed as a fishing port and harbour for pleasure craft.

Air transport structures

Under this heading one must include:

- *airport structures*

- *installations for navigation and safety;*
- *meteorological installations.*

In the field of airport structures, the greater part of investment requirements are the outcome of:

- *the increase in traffic;*
- *the increase in the number of aircraft and the need to cater for new types of aircraft.*

In the latter context, the replacement of DC.4 aircraft by those of the Convair 64.P type and the use of heavy transport aircraft instead of Caravelles will involve the runways used by these planes being both reinforced and lengthened. These developments will also involve a modernization of security provisions.

An effort will be made in the meteorological sector to enable it to meet its obligations towards such sectors as irrigation, agriculture, industry and transport. A Regional Centre for Meteorological Telecommunications is to be set up.

A Regional Meteorological Centre is to be set up to cater for the Sahara, so as to allow effective forecasting to be initiated and thus provide effective help in the economic development of the South.

The total amount of investments in air transport will be 0.110 billion DA.

Irrigation

Investments in all irrigation projects are to total 0.8 billion DA, to be distributed as follows:

- *0.2 billion DA for general and regional water mobilization studies and studies of soil utilization linked to that of water;*
- *0.6 billion DA for work on the utilization of surface and underground water and for transferring this water. To this should be added a conservation project for the industrial zone of Skikda.*

Apart from the construction of a dam at Zardezas to suplpy the Skikda industrial complex and of a dam at Fermatou to provide a water supply for Sétif, the other investments scheduled are mainly to be used for agriculture.

The characteristics of the principal projects to be undertaken in the next four years are given in the following table:

DAMS	Capacity (hm^3)	Controlled outflow (hm^3)	Estimated cost (millions DA)
Sidi Abdelli	160	72	92
Cheurfas	100	36	70
Ouizert	70	28	68
Deurdeur	70	26	40
Zeddine	110	40	80
Bou Roumi	70	25	40
Fermatou	15	8	40
Ksob	25	25	40
Zardezas	24	22	50
Salah Bouchaour	30	30	50
Sidi Mohamed Ben Aouada	250	(with Zardézas)	
Skikda	25	95	170
Ben Hamdane:		14	25
1st alternative	190	60	130
2nd alternative	110	45	75

The transport programme

The choice of areas of investment within the transport sector was made on the basis of their importance from the standpoint of development strategy.

These considerations have led to a priority being given to land freight transport (i.e. by road and by rail).

The distribution of investments among the various modes of transport is as follows:

DISTRIBUTION OF INVESTMENTS AMONG THE VARIOUS MODES OF TRANSPORT

	Investments 1970-73 (in billions of DA)	**Relative Proportion**
Road transport	135,1	54%
Rail transport	298,4	
Air transport	130,0	16%
Sea transport	236,5	30%
TOTAL	**800,0**	**100%**

Road transport

The transportation of freight by road, outside the urban areas, is scheduled to increase by about 45%, giving an annual growth rate of 9.6% between 1970 and 1973. The Société Nationale des Transports (S.N.T.R.), the body that is most active in this field, is consequently scheduled to account for an increased proportion of road traffic. The percentage of freight handled by the S.N.T.R. as compared to the total figure will be increased from 14.5% in 1970 to 25.5% in 1973, giving an increase of 150% in the tonnage transported during the period of the Four-Year Plan.

The scheduled investment of 0.116 billion DA will allow the number of vehicles to be increased by 70%, i.e. from 840 vehicles to 1500 vehicles in 1973. The remaining investments, i.e. 0.0188 billion DA, is to be used to replace old passenger vehicles and for the modernization and extension of workshops and storage depôts.

Rail transport

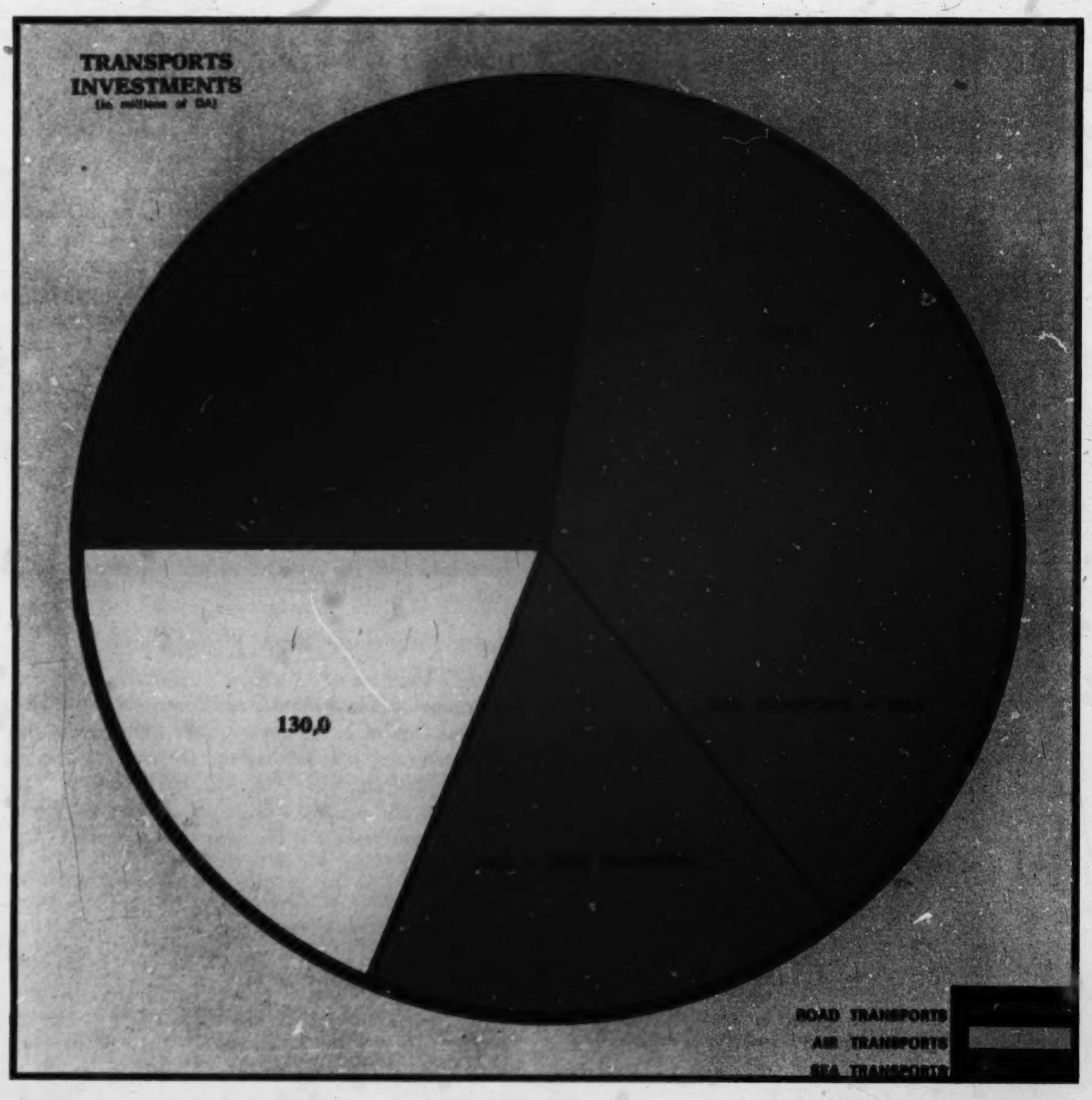
The transport of freight (including minerals) by rail is scheduled to increase by 90% between 1969 and 1973, giving an annual growth rate of 14.4%. Passenger transport during the same period is to be increased by 52%, giving an annual growth rate of 8.8%. The Government's provisions in this field aim to cater for these predicted increases in both passenger and freight traffic and are concerned with:

- *the renewal and modernization of locomotives, wagons and other equipment;*
- *construction work linked to industrial and mining projects.*

It should be noted that these investments are only concerned with the installations and equipment of the national network.

Renewal and modernization projects include:

- *the acquisition of 32 electric locomotives to replace 28 locomotives near the end of their useful life, whose age and limited power render them unsuited for use in transporting minerals, where the increased traffic (85% more between 1968 and 1973) will involve increasing the tonnage carried by trains from 1,800 to 2,400 tons, whilst at the same time increasing their speed;*
- *the acquisition of 20 DIESEL electric locomotives to replace a certain number of the 116 locomotives now in service, which are not in a state to meet the demande of increased traffic;*
- *the acquisition of 20 autorails, as those now in service (16 in number) are not sufficient to improve the service in the outlying parts of Algiers, Oran and*


TRANSPORTS
INVESTMENTS
(in millions of DA)
130,0
ROAD TRANSPORTS
AIR TRANSPORTS
SEA TRANSPORTS

Constantine, whilst catering for short-distances in the North and the South Constantinois.

- *the acquisition of 20 stainless steel carriages to meet the demands of peak-hour traffic and requirements for special trains, for which present carrying capacity is insufficient, particularly as a number of carriages now in use will shortly be due for replacement;*
- *the acquisition of 1,000 waggons to meet increased traffic demands and to enable 200 waggons of the existing rolling stock to be replaced.*

In addition to these various acquisitions, work on surface structures is to be undertaken in connection with the industrial programme, and will include:

- *in the region of Annaba, the laying of a second track along the line between El Hadjar and Annaba, the connection of the Ramdane Djamel-Annaba line to the Souk Ahras line, the installation of an electric station to serve El Hadjar-Annaba and the initial work on a goods depot at Annaba (where work and installations are to be related to the steel works, the Annaba phosphate complex and the Guelma sugar refinery);*
- *work on the lines serving the refinery and industrial zone at Skikda.*

Sea transport

The proportion of tonnage transported in 1968 by the Algerian Merchant Marine shows the slight extent of the participation, by our shipping, in the country's foreign trade (10% of total imports and exports excluding hydrocarbons, and 0.17% of imports and exports including hydrocarbons). It has therefore been decided that, during the period of the Four-Year Plan, the five vessels now operated by the C.N.A.N. (Compagnie Nationale Algérienne de Navigation) will be reinforced by a further fifteen.

Air transport

20 aircraft for agricultural work are to be acquired to increase the capacity of the " Société de Travail Aerien ", together with 2 aircraft for air taxi work, each seating 20 people, so as to meet the increased demand for internal air transport.

The telecommunications programme

Investments to be made in this field relate to:

1) the automisation of telephone exchanges in all Wilaya capitals and in the major industrial centres, and the renewal of outdated equipment;

2) the improvement of international connections by the laying of a new cable between Annaba and Italy;

3) the initial work on a Hertzian station, the need for which arises from the development and diversification of international traffic.

This programme will entail an investment of 0.365 billion DA and will involve the lating of inter-regional cables, of which the most important are to connect Ouargla and Skikda, Constantine and Sétif, and Bouira and Sour-el-Ghozlane.

Socio-cultural equipment and tourism

The investments scheduled in the programme of socio-cultural equipment should result in an improvement of our people's standard of life. They are, however, modest in comparison with those made in the productive sectors, because of the limitations of productive resources and the choice that had to be made when allocating investments to the various sectors.

Socio-cultural investments include those made for housing, community structures, health and culture.

Housing

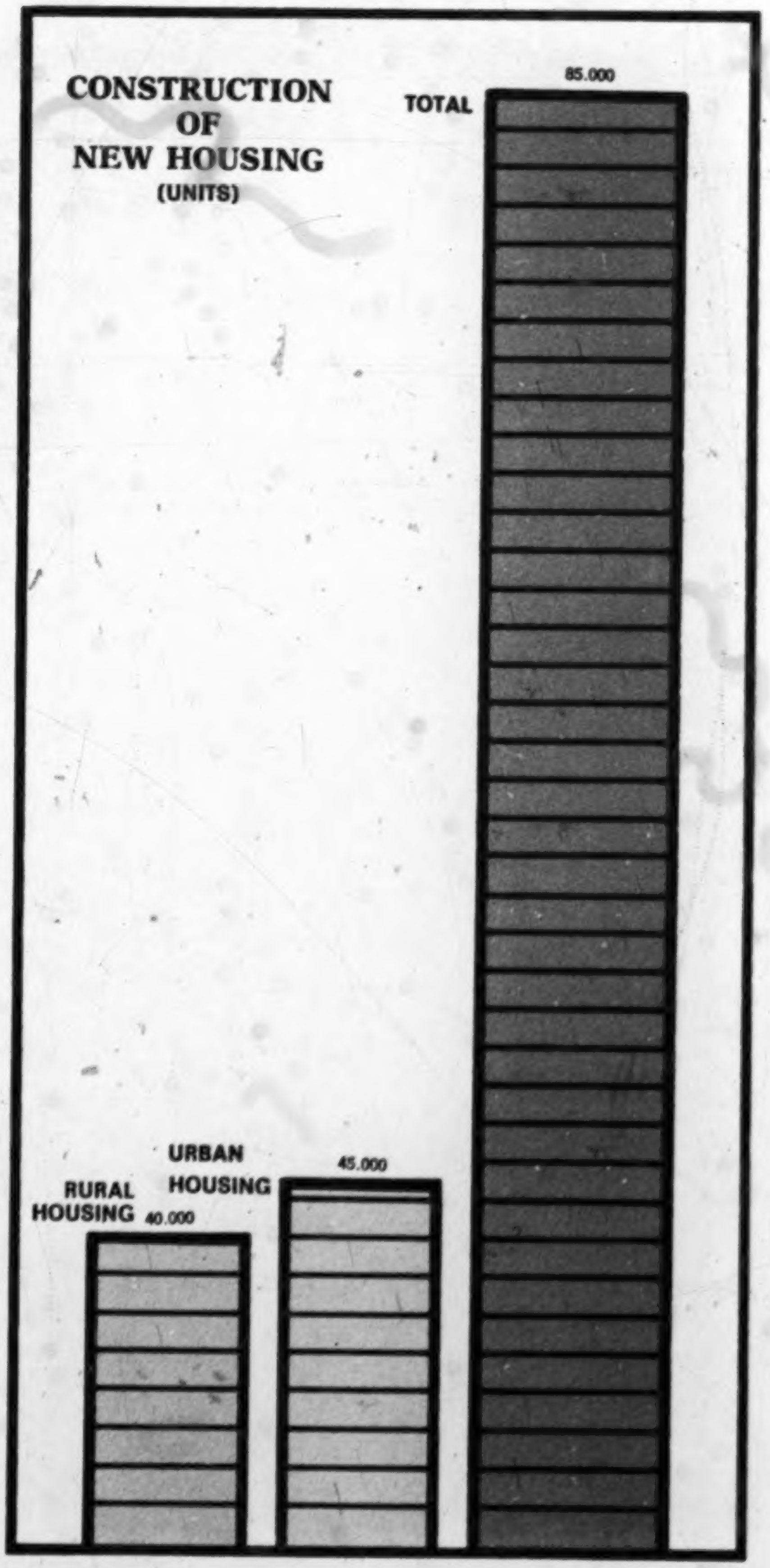
The construction programme to be put into effect between 1970 and 1973 can be summarized in the following table:

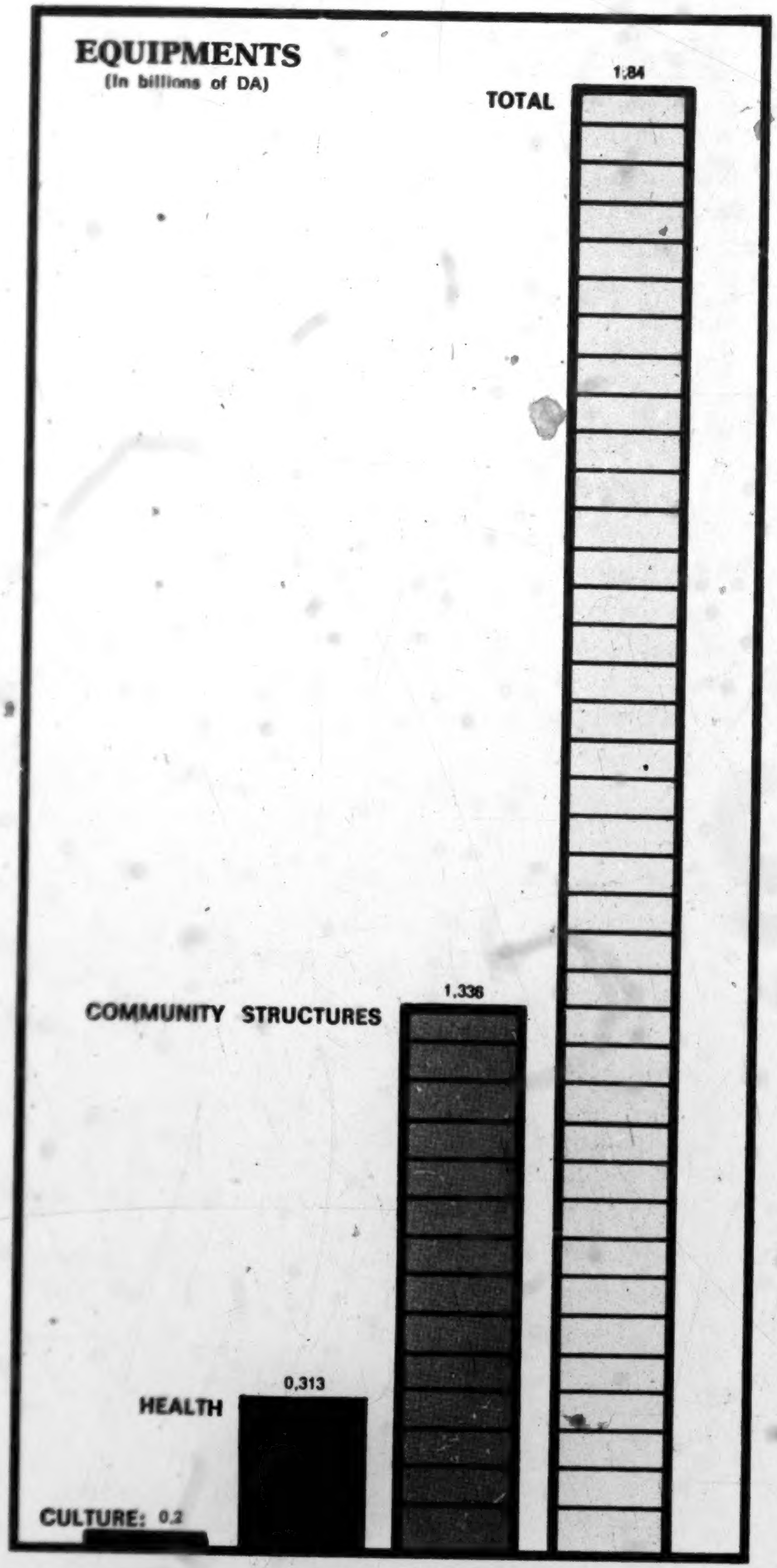
CONSTRUCTION OF NEW HOUSING (1970 - 1973)		
	Number of Units	Cost
Urban housing	45.000	1,2
Rural housing	40.000	0,305
TOTAL	**85.000**	**1,505** (billion DA)

Even if this construction programme appears to be insufficient, it shows a very marked increase in activity as compared to the provisions of the Three-Year Plan, for whereas 6,500 housing units per year were built between 1967 and 1969, 21,000 units per year are to be built between 1970 and 1973. This rate of expansion, which appears slow if one considers:

- *the current housing shortage in certain urban centres (Algiers, Annaba etc.)*
- *the growth of the urban population (more than a million additional inhabitants in the towns between 1970 and 1973);*
- *the natural rate of increase in the population;*

is due to the absence of adequate structures to increase the speed of construction. Only when these structures have been set up (at the end of the Four-Year period) will a significant construction programme be possible, i.e. after the promotion of the building materials sector and the setting up of corporations of public works. Nonetheless, in the rural regions, the practice of local participation is accepted, whereby in estates and farms under self-management, a part of the unit's income must be set aside for housing and the workers must devote a few days to building assignments.





In the four rural zones where real income is very low, local participation is limited to work on building assignments and equipment, materials and technicians are provided by the State.

This building programme in the country is a part of a generalized policy aiming to increase the standard of life of the rural population and contribute to its settlement, with a view to limiting the flight to the towns and emigration to Europe.

Community structures, health and culture

Scheduled investments in this sector will amount to 1.84 billion DA to be distributed as follows:

Community structures (electrification and gas supply included)	Health	Culture	Total
1,336	0,313	0,2	1,849

These figures show that the Government has given a certain priority to collective structures (electricity and water supply etc.), which not only serve to improve the standard of living of our people (particularly those living in the country), but also stimulate technical progress and modern consumer habits (gas, electricity etc.). It is, however, equally important to safeguard our human resources by improving public health provisions. This action has more than a purely social content... it is also an economic necessity as the state of health of any group of people is directly linked to its capacity for production. This is why any coherent development plan must take account of the health of its human component. It has therefore been decided to build, among other projects, four hospitals, 100 multi-purpose clinics and 100 dispensaries, laying an emphasis on preventative rather than curative structures and equipment.

And finally, in the cultural field, an indispensable complement to the campaign for widespread education, the government plans to extend various modes of expression and cultural formation. Television, for example, is to be extended to all parts of the country, an increased number of Algerian films are to be produced, increased radio facilities are to be made available and additional libraries will be opened.

Tourism

The factors serving to promote international tourism in Algeria are as follows: the natural beauty and diversity of its sites, the country's cultural and exotic appeal and the general attractions of the Mediterranean region.

The development of tourism can be justified on two accounts from a purely economic standpoint:

■ *when conceived on an international scale, it is the equivalent of an export industry in that it provides foreign currency, i.e. the essential means of financing industrialization. But even if one takes account of the statistical difficulties of registering all tourists coming into the country, it can nonetheless be seen that they are few in number as compared to those visiting the other North African countries. This is because of the paucity of hotel structures, relatively undeveloped even prior to 1962.*

■ *it engenders a large number of jobs: it has been seen in North Africa as a whole that an additional* *job is created by every 2.5 beds added to the hotel capacity.*

An investment of 0.7 billion DA is scheduled between 1970 and 1973 for the construction of coastal resorts in the West, the East and Centre of Algeria. At the same time, a further 0.12 billion DA is to provide further equipment for some of Algeria's 200 thermal stations and hot springs which, unlike the coastal resorts, are directly beneficial to the people.

The scheduled development programme should lead to the 12,000 hotel beds now available being increased to 14,000. These provisions are to be made as follows:

- *9,000 by the State*
- *2,000 - 3,000 by the Communes, which are already responsible for villas and beach-houses;*
- *1,000 - 2,000 by the private sector.*

To sum up, it can be noted that:

- *Algeria's efforts in the field of tourism are exactly comparable to those of other North Africa countries with which she is in competition although they, unlike Algeria, make use of foreign capital attracted by investment in this sector;*
- *tourist activity, involving a clientele deriving particularly from Western countries, is sensitive to the vagaries of international politics;*
- *the trends of international tourism (i.e. of the luxury class) may appear paradoxical to a people obliged to live under austerity conditions to achieve their economic development.*

Conclusion

It has been seen that Algerian government policy aims to develop all sectors of productive activity, while laying a particular emphasis on heavy industry. In this way, between 1970 and 1973:

- Agriculture will develop at the same rate as that of population increase, i.e. 3%;
- Light industry (food, textiles, leather and hides, wood etc...) will continue to grow, in spite of the previous high investment in this sector, which has the great advantage of employing a lot of labour;
- Heavy industry (mechanical engineering, metallurgy, steel, petrochemistry etc...) will show a very marked growth rate because of its effects on other sectors and the high level of self-sufficiency that it is able to guarantee, in the long term, to our economy, in respect of such strategic items as machines, means of transport etc.

This plan for the productive sectors is accompanied by a programme of education and training without which the material projects could not find staff or keep their equipment running. This programme will, by spreading knowledge, raise the technical and cultural level of those benefitting from its provisions.

It is evident that, during the period of the Plan, the economic structure of the country will change because of:

- The reduction of the percentage of the Gross National Income that derives from the sector of agriculture;
- The perceptible increase in the percentage of the Gross National Income that derives from industry.

This change, that will influence the pattern of demand, on the one hand, and the composition of foreign trade on the other, will be symptomatic of a swiftly expanding economy, engaged on the way towards economic development.

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